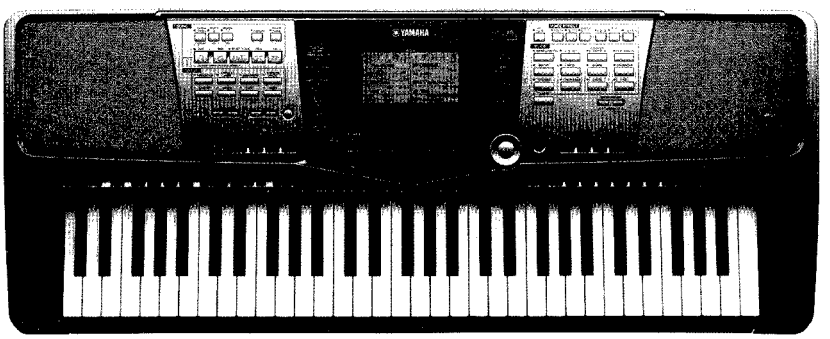
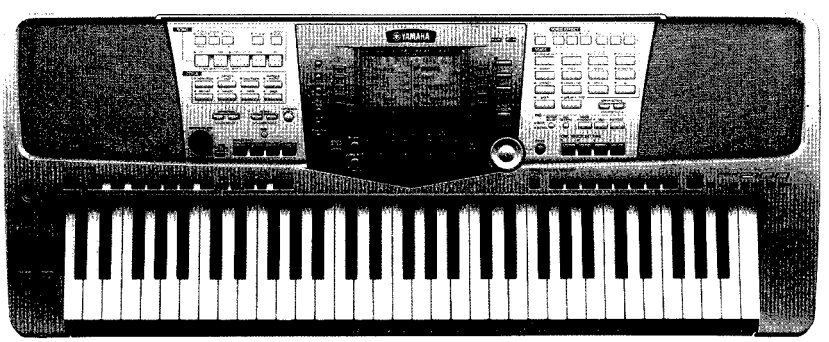
PORTATONE

PSR-1100/PSR-2100

OVERALL CIRCUIT DIAGRAM



PSR-1100



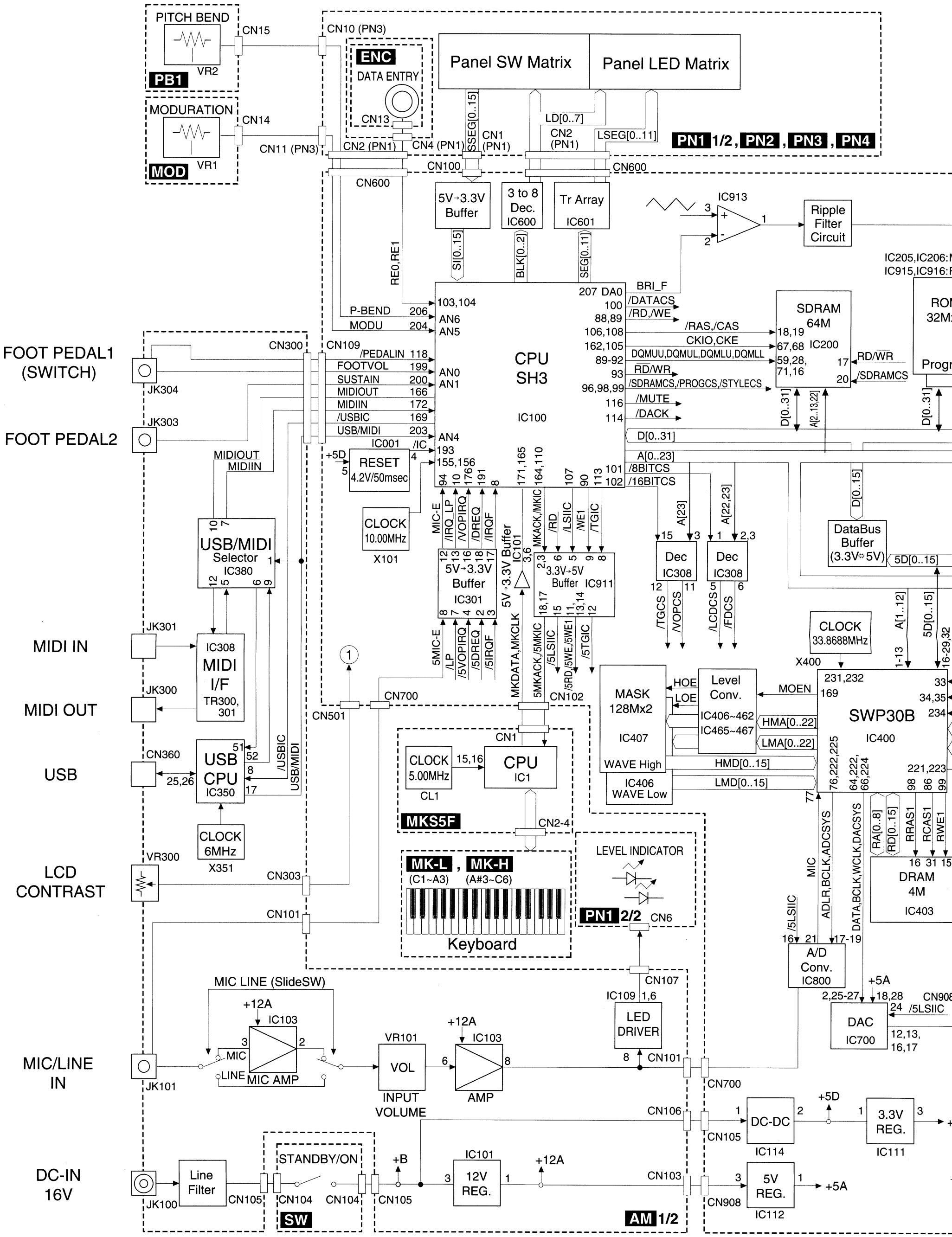
PSR-2100

- PSR-1100 BLOCK DIAGRAM
  PSR-2100 BLOCK DIAGRAM
- PSR-1100 OVERALL CIRCUIT DIAGRAM (DM1/2, INV)
  PSR-2100 OVERALL CIRCUIT DIAGRAM (DM1/2, INV)
- OVERALL CIRCUIT DIAGRAM (DM 2/2, PN1, PN2, PN3, PN4, ENC, PB1, PB2, MOD)
  OVERALL CIRCUIT DIAGRAM (AM, VR, HP, SW, MKS5F, MK-L, MK-H)

PK 001701

YAMAHA
HAMAMATSU, JAPAN
IT Printed in Japan '03.04

■PSR-2100 BLOCK DIAGRAM（ブロックダイアグラム）

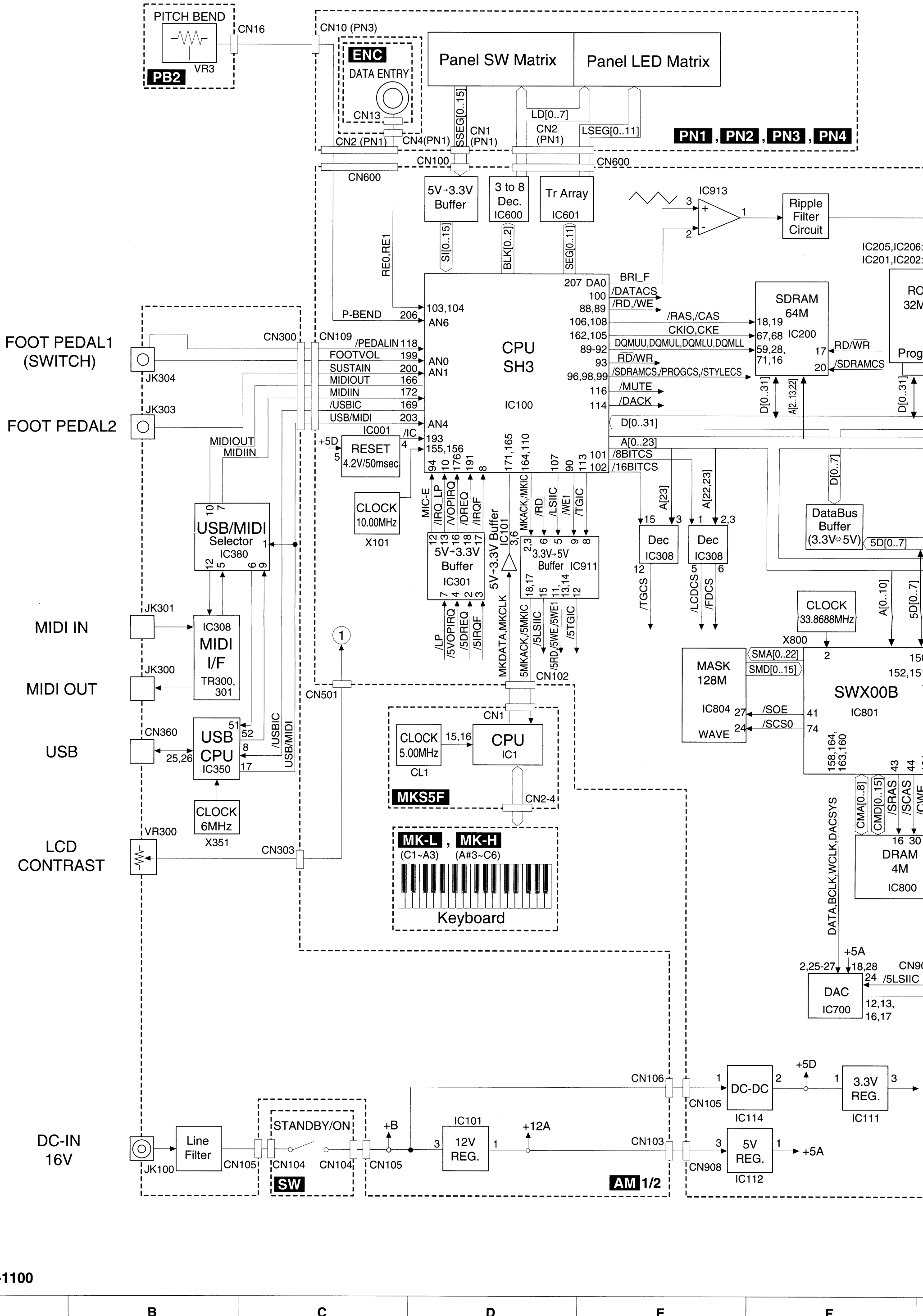


グラム)

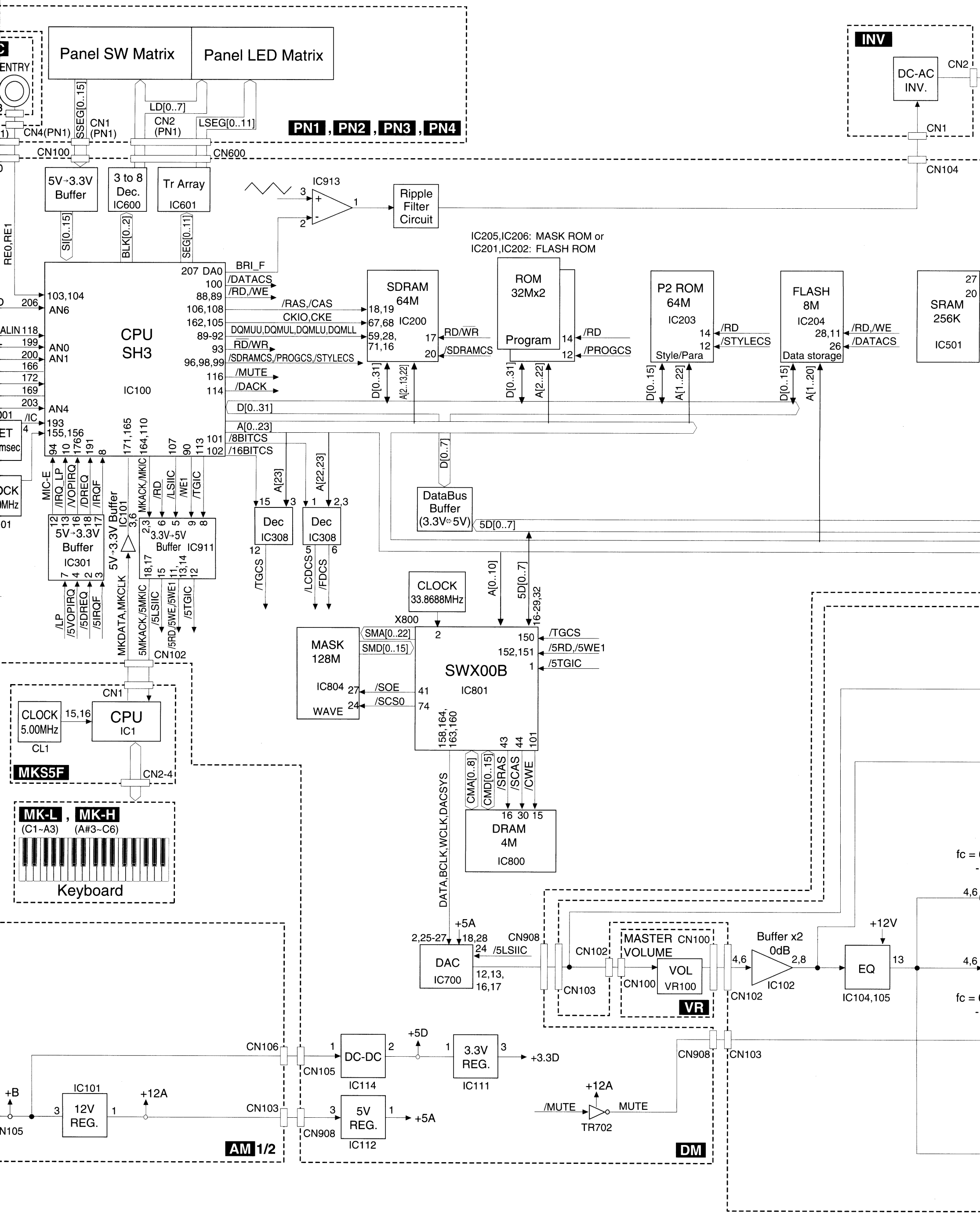
Panel SW Matrix
Panel LED Matrix
PN1 1/2, PN2, PN3, PN4
SSEG[0..15]
LD[0..7]
LSEG[0..11]
CN1 (PN1)
CN2 (PN1)
CN4 (PN1)
CN100
CN600
INV
DC-AC INV.
CN2
CN1
CN104
5V→3.3V Buffer
3 to 8 Dec. IC600
Tr Array IC601
IC913
Ripple Filter Circuit
SI[0..15]
BLK[0..2]
SEG[0..11]
RE0,RE1
IC205,IC206:MASK ROM or
IC915,IC916:FLASH ROM
CPU SH3
IC100
BRI_F
/DATACS
/RD,/WE
/RAS,/CAS
CKIO,CKE
DQMUU,DQMUL,DQMLL,DQMLL
RD/WR
/SDRAMCS,/PROGCS,/STYLECS
/MUTE
/DACK
D[0..31]
A[0..23]
/8BITCS
/16BITCS
SDRAM 64M IC200
ROM 32Mx2 Program
P2 ROM 64M IC917 Style/Para
FLASH 16M IC204 Data storage
SRAM 256K IC501
/RD
/STYLECS
/PROGCS
/RD,/WE
/DATACS
DataBus Buffer (3.3V⇔5V)
5D[0..15]
D[0..15]
5V→3.3V Buffer IC301
3.3V→5V Buffer IC911
5V→3.3V Buffer IC101
Dec IC308
Dec IC308
/TGCS
/VOPCS
/LCDCS
/FDCS
CLOCK 33.8688MHz
X400
A[1..12]
5A[1..6]
MASK 128Mx2 IC407 WAVE High
IC406 WAVE Low
Level Conv. IC406~462 IC465~467
HOE
LOE
MOEN
HMA[0..22]
LMA[0..22]
HMD[0..15]
LMD[0..15]
SWP30B IC400
VOP3 IC401
/TGCS
/5RD,/5WE1
/5TGIC
MELO[3..5,7]
SO[1,3,5]
SYOD,HCLK
/VOPCS
/5RD,/5WE1
/5TGIC
/5VOPIRQ
WA[0..8]
WD[4..19]
VOPRAS
VOPCAS
VOPWE
VOPOE
RA[0..8]
RD[0..15]
RRAS1
RCAS1
RWE1
DRAM 4M IC403
DRAM 4M IC402
MIC
ADLR,BCLK,ADCSYS
DATA,BCLK,WCLK,DACSYS
/5LSIIC
A/D Conv. IC800
DAC IC700
CN908
CN102
CN103
MASTER VOLUME
VOL VR100
VR
Buffer x2 0dB
IC102
EQ
IC104,105
+12V
+5A
CN700
CN106
CN105
DC-DC
IC114
+5D
3.3V REG.
IC111
+3.3D
CN107
IC109
LED DRIVER
CN101
VR101
VOL
INPUT VOLUME
+12A
IC103
AMP
+B
IC101
12V REG.
CN103
CN908
5V REG.
IC112
+5A
+12A
/MUTE
MUTE
TR702
AM 1/2
DM
CN700
CN102
CN1
CLOCK 5.00MHz
CL1
CPU IC1
CN2-4
MKS5F
MK-L , MK-H
(C1~A3) (A#3~C6)
Keyboard
LEVEL INDICATOR
PN1 2/2
CN6
MKDATA,MKCLK
5MKACK,/5MKIC
/5LSIIC
/5RD,/5WE,/5WE1
/5TGIC
5MIC-E
/LP
/5VOPIRQ
/5DREQ
/5IRQF
MIC-E
/IRQ_LP
/VOPIRQ
/DREQ
/IRQF
MKACK,/MKIC
/RD
/LSIIC
/WE1
/TGIC
A[23]
A[22,23]

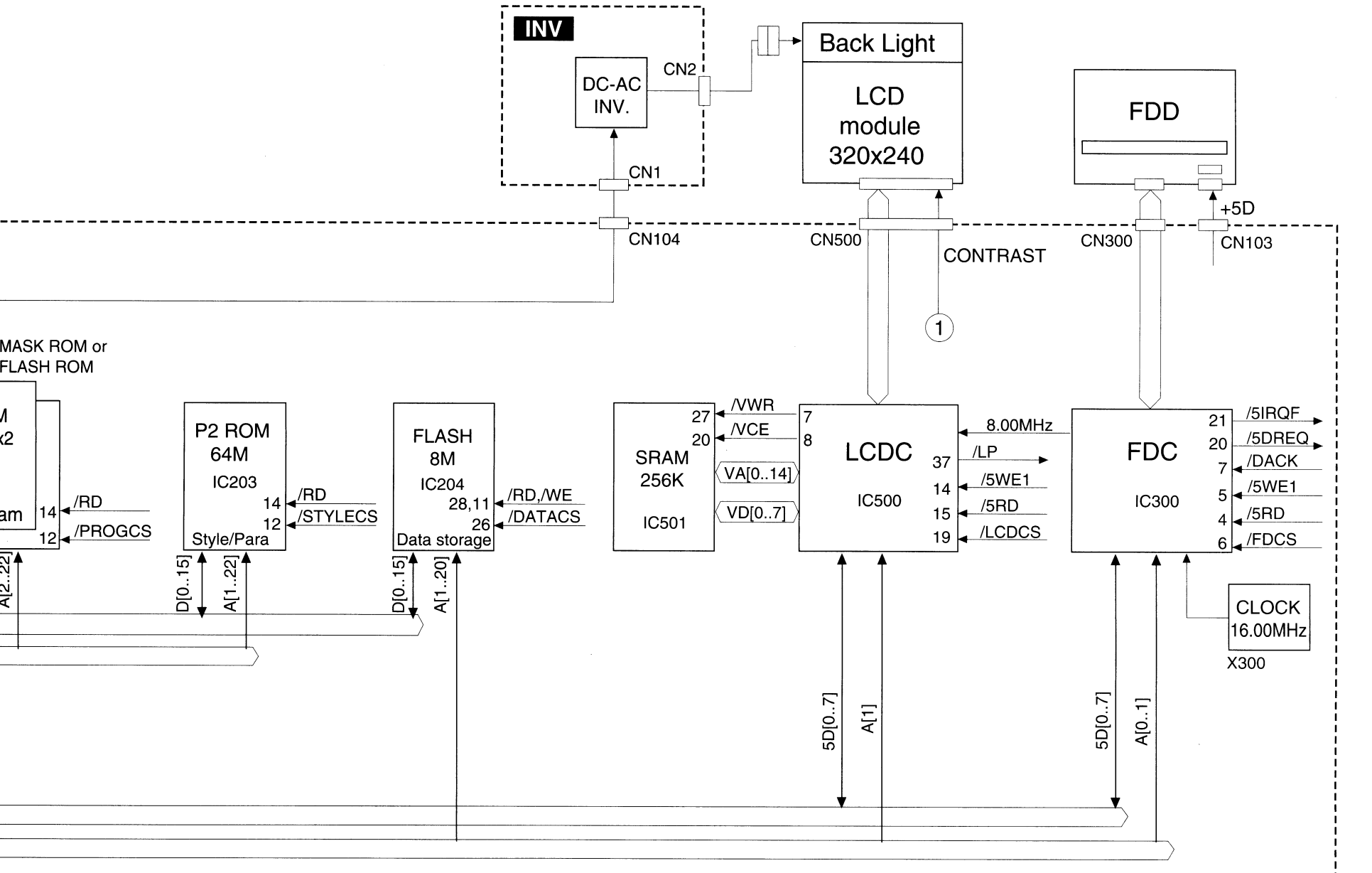
INV
DC-AC INV.
CN2
CN1
Back Light
LCD module 320x240
FDD
CN104
CN500
CONTRAST
CN300
+5D
CN103
1
ASK ROM or
LASH ROM
2
am
27
24
/RD
/PROGCS
P2 ROM 64M
IC917
27
24
/RD
/STYLECS
Style/Para
FLASH 16M
IC204
28,11
26
/RD,/WE
/DATACS
Data storage
D[0..15]
A[1..23]
D[0..15]
A[1..20]
SRAM 256K
IC501
27
20
/VWR
/VCE
VA[0..14]
VD[0..7]
LCDC
IC500
7
8
37
14
15
19
8.00MHz
/LP
/5WE1
/5RD
/LCDCS
FDC
IC300
21
20
7
5
4
6
/5IRQF
/5DREQ
/DACK
/5WE1
/5RD
/FDCS
CLOCK
16.00MHz
X300
5D[0..7]
A[1]
5D[0..7]
A[0..1]
5A[1..6]
125-129,
132
5D[0..15]
140-144,
147-152,
155-159
/TGCS
/5RD,/5WE1
/5TGIC
MELO[3..5,7]
SO[1,3,5]
SYOD,HCLK
VOP3
134
135,136
101
81
/VOPCS
/5RD,/5WE1
/5TGIC
/5VOPIRQ
102,103
IC401
26 27 24 25
WA[0..8]
WD[4..19]
VOPRAS
VOPCAS
VOPWE
VOPOE
16 30 15 29
DRAM
4M
IC402
+12A
IC111
JK104
4,6
2
8
R
L
AUX OUT
+12A
JK102
4,6
2
8
IC112
R
L
OUTPUT
fc = 6kHz
-12dB/Oct
+B
4 IC113
CN109
4,6
HPF
2,2
ATT
8,10
1
2
3
5
L
R
Tweeter
L & R
IC107,108
+B
11,18
15
17
14
12
CN110
+12V
MASTER
VOLUME
CN100
CN102
VOL
VR100
CN100
CN103
VR
4,6
Buffer x2
0dB
2,8
IC102
CN102
EQ
IC104,105
13
4,6
LPF
8,8
ATT
2,7
5
IC110
L
R
Woofer
L & R
fc = 6kHz
-12dB/Oct
TR100~106,400,401
MUTE
Circuit
AM 2/2
CN908
CN103
3.3D
+12A
/MUTE
MUTE
TR702
DM
+12A
2 IC114
CN111
6,7
3
1
ATT
PHONES
JK105
CN108
HP
28CA1-8826449
PSR-2100

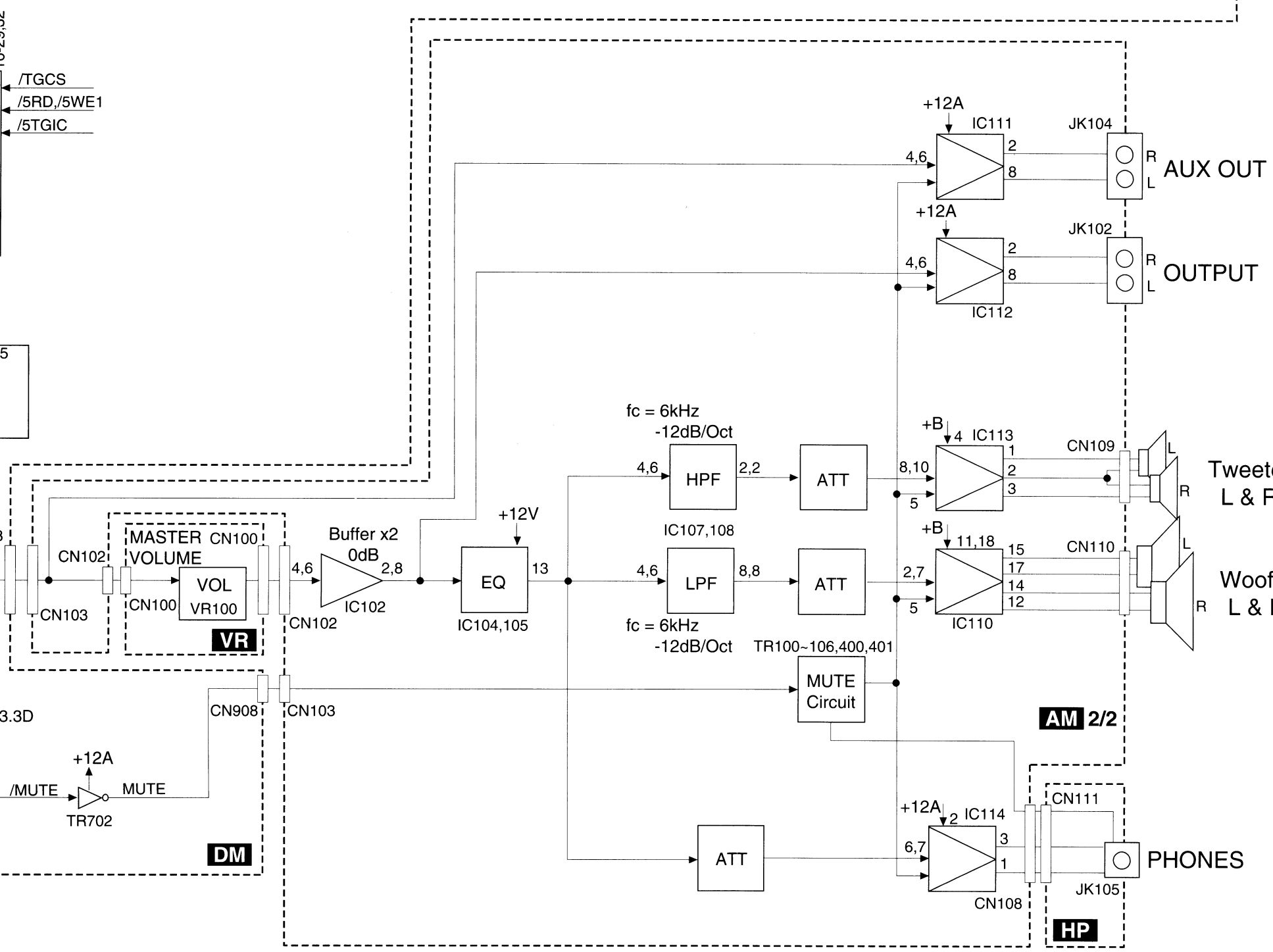
■PSR-1100 BLOCK DIAGRAM（ブロックダイアグラム）



グラム)


Panel SW Matrix
Panel LED Matrix
PN1 , PN2 , PN3 , PN4
SSEG[0..15]
LD[0..7]
LSEG[0..11]
CN1 (PN1)
CN2 (PN1)
CN4(PN1)
CN100
CN600
INV
DC-AC INV.
CN2
CN1
CN104
5V→3.3V Buffer
3 to 8 Dec. IC600
Tr Array IC601
IC913
Ripple Filter Circuit
SI[0..15]
BLK[0..2]
SEG[0..11]
IC205,IC206: MASK ROM or
IC201,IC202: FLASH ROM
SDRAM 64M
IC200
ROM 32Mx2
Program
P2 ROM 64M
IC203
Style/Para
FLASH 8M
IC204
Data storage
SRAM 256K
IC501
CPU SH3
IC100
BRI_F
/DATACS
/RD,/WE
/RAS,/CAS
CKIO,CKE
DQMUU,DQMUL,DQMLL
RD/WR
/SDRAMCS,/PROGCS,/STYLECS
/MUTE
/DACK
D[0..31]
A[0..23]
/8BITCS
/16BITCS
/RD
/STYLECS
/PROGCS
/SDRAMCS
/RD/WR
/TGICS
/LSIIC
/WE1
/LCDCS
/FDCS
/TGCS
/5RD,/5WE1
/5TGIC
/SOE
/SCS0
/SRAS
/SCAS
/CWE
CMA[0..8]
CMD[0..15]
DataBus Buffer (3.3V⇔5V)
5D[0..7]
D[0..7]
A[0..10]
A[23]
A[22,23]
Dec IC308
5V→3.3V Buffer IC301
3.3V→5V Buffer IC911
IC101
MIC-E
/IRQ_LP
/VOPIRQ
/DREQ
/IRQF
/LP
/5VOPIRQ
/5DREQ
/5IRQF
MKDATA,MKCLK
MKACK,/MKIC
5MKACK,/5MKIC
/5LSIIC
/5WE,/5WE1
/5TGIC
CN101
CN102
CLOCK 33.8688MHz
X800
MASK 128M
IC804
WAVE
SMA[0..22]
SMD[0..15]
SWX00B
IC801
DRAM 4M
IC800
CLOCK 5.00MHz
CL1
CPU IC1
CN1
CN2-4
MKS5F
MK-L , MK-H
(C1~A3)
(A#3~C6)
Keyboard
DATA,BCLK,WCLK,DACSYS
+5A
DAC IC700
/5LSIIC
CN908
CN103
MASTER VOLUME
VOL VR100
VR
Buffer x2 0dB
IC102
EQ
IC104,105
+12V
CN106
CN105
DC-DC
IC114
+5D
3.3V REG.
IC111
+3.3D
+B
IC101
12V REG.
+12A
CN103
5V REG.
IC112
/MUTE
MUTE
TR702
AM 1/2
DM





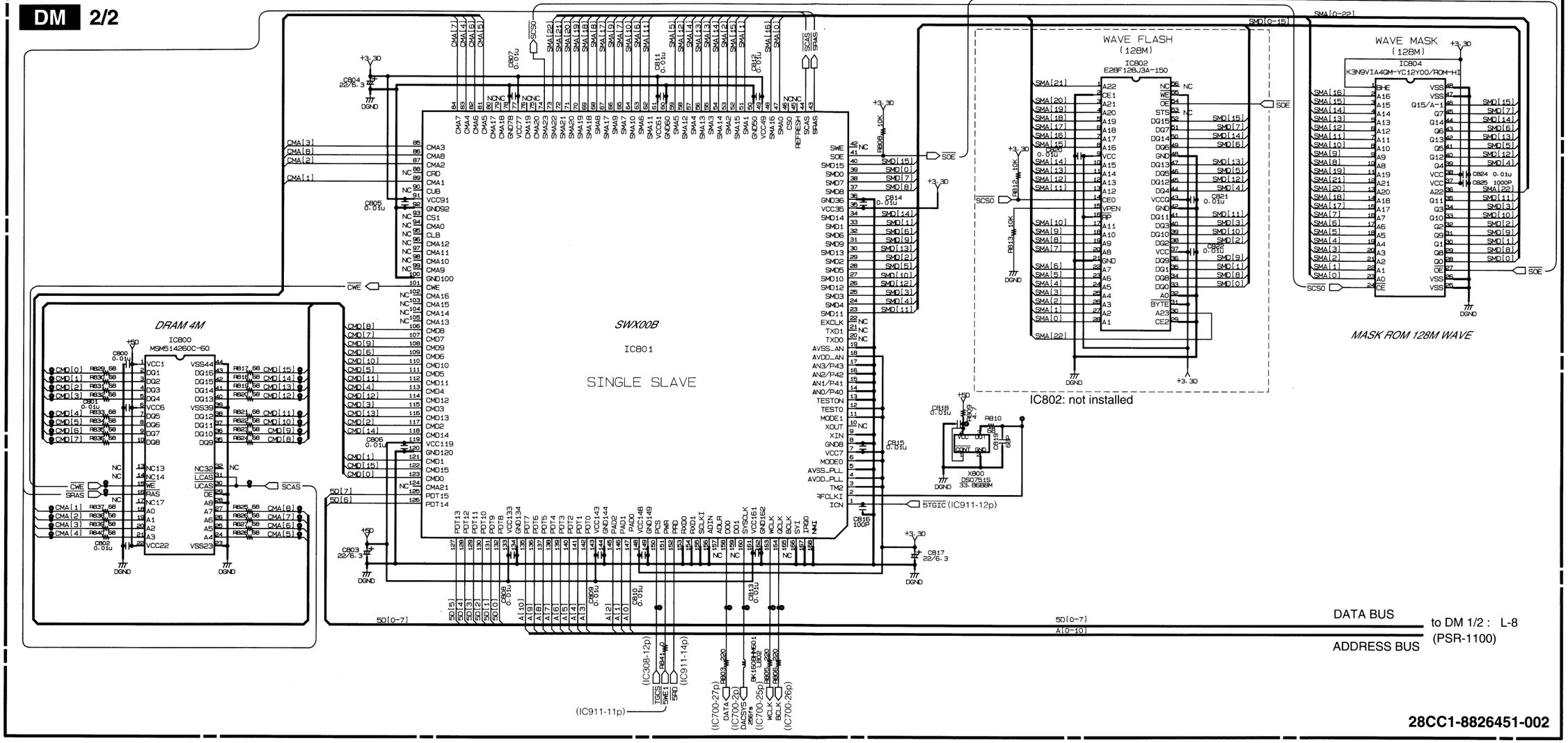
28CA1-8826448

PSR-1100

■ PSR-1100/PSR-2100 OVERALL CIRCUIT DIAGRAM (DM 2/2, PN1, PN2, PN3, PN4, ENC, PB1, PB2, MOD)

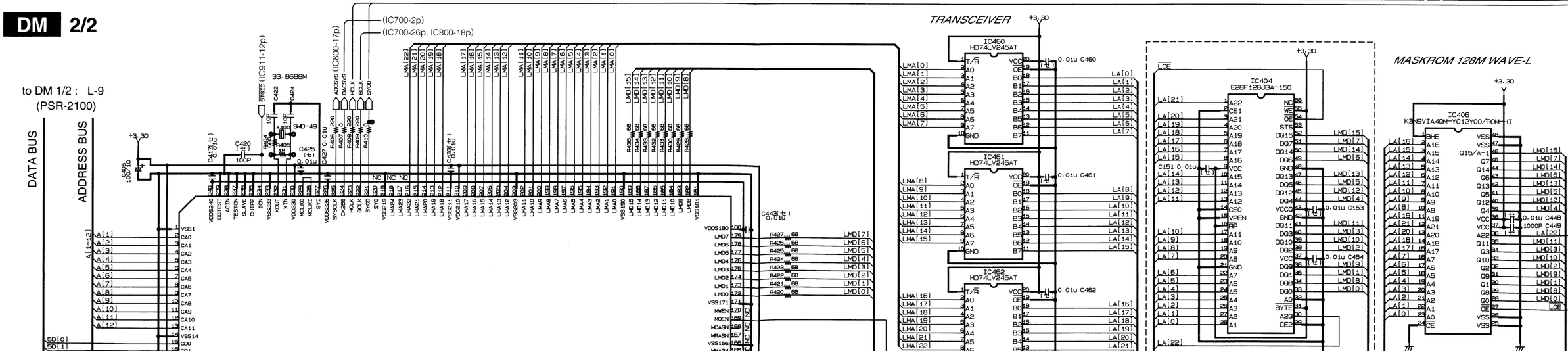
● PSR-1100

DM 2/2



● PSR-2100

DM 2/2



PB1, PB2, MOD)

WAVE FLASH (128M)

IC802 E28F128J3A-150

WAVE MASK (128M)

IC804 K3N9V1A4QM-YC12Y00/ROM-HI

MASK ROM 128M WAVE

IC802: not installed

X800 DSO751S 33.8688M

5TGIC (IC911-12p)

DATA BUS — to DM 1/2 : L-8 (PSR-1100)

ADDRESS BUS

28CC1-8826451-002

ENC

EC1 REB161_EVB-15F

DATA-ENTRY

28CC1-8820770

CN13

PN1

52207-2690 CN2

to DM-CN600

to DM-CN100

to AM-CN107 (PSR-2100)

52207-2190 CN1

52207-2890 CN3

CN6 OVER SIGNAL PSR-2100 only

OTS-1 OTS-2 OTS-3 OTS-4 REG-1 REG-2 REG-3 REG-4 REG-5 REG-6 REG-7 REG-8

PSR-2100 only: VOCAL HARMONY, TALK, EFFECT, LEFT HOLD, TOUTCH, SUSTAIN, HARMONY ECHO, ORGAN FLUTES

VARIATION, PIANO& HARPSI, E. PIANO, ORGAN& ACCORDION, PERC., GUITAR, BASS, BRASS, W. WIND, STRINGS, CHOIR&PAD, SYNTH, XG, USER (VOICE), FREEZE (REG)

MAIN, LAYER, LEFT, MONO

DSP RSR-2100 only

DIRECT ACCESS, BALLANCE, CHANNEL ON/OFF, 1-UP, 2-UP

TRANSCEIVER

IC460 HD74LV245AT

IC461 HD74LV245AT

IC462 HD74LV245AT

IC404 E28F128J3A-150

MASKROM 128M WAVE-L

IC406 K3N9V1A4QM-YC12Y00/ROM-HI

ENC

EC1
REB161_PVB-15F

DATA-ENTRY

28CC1-8820770

PN1

52207-2690
CN2

CN4

CN5

52207-2190
CN1

52207-2890
CN3

to DM-CN600

to DM-CN100

to AM-CN107
(PSR-2100)

CN6
OVER
SIGNAL
PSR-2100 only

PSR-2100 only
RSR-2100 only

28CC1-8820770

CN7

CN8

CN9

DATA BUS

ADDRESS BUS

to DM 1/2 : L-8 (PSR-1100)

28CC1-8826451-002

● PSR-2100

DM 2/2

to DM 1/2 : L-9 (PSR-2100)

IC400 SWP30B

TRANSCEIVER

IC460 HD74LV2245AT

IC461 HD74LV2245AT

IC462 HD74LV2245AT

IC404 E28F128J3A-150

IC404: not installed

MASKROM 128M WAVE-L

IC406 K3N9V1A4GM-YC12Y00/ROM-HI

TRANSCEIVER

IC465 HD74LV2245AT

IC466 HD74LV2245AT

IC467 HD74LV2245AT

IC405 E28F128J3A-150

IC405: not installed

MASKROM 128M WAVE-H

IC407 K3N9V1A4GM-YC12Y00/ROM-HI

IC403 MSM5142260C-60 DRAM 4M

DATA BUS
5D[0-7]
to DM 1/2 : L-8
(PSR-1100)
ADDRESS BUS
A[0-10]

28CC1-8826451-002

TRANSCEIVER

IC460 HD74LV245AT
IC461 HD74LV245AT
IC462 HD74LV245AT

LMA[0] LMA[1] LMA[2] LMA[3] LMA[4] LMA[5] LMA[6] LMA[7]
LMA[8] LMA[9] LMA[10] LMA[11] LMA[12] LMA[13] LMA[14] LMA[15]
LMA[16] LMA[17] LMA[18] LMA[19] LMA[20] LMA[21] LMA[22]

LA[0] LA[1] LA[2] LA[3] LA[4] LA[5] LA[6] LA[7]
LA[8] LA[9] LA[10] LA[11] LA[12] LA[13] LA[14] LA[15]
LA[16] LA[17] LA[18] LA[19] LA[20] LA[21] LA[22] LOE

0.01u C460
0.01u C461
0.01u C462

MASKROM 128M WAVE-L

IC404 E28F128J3A-150

LA[21] LA[20] LA[19] LA[18] LA[17] LA[16] LA[15] LA[14] LA[13] LA[12] LA[11] LA[10] LA[9] LA[8] LA[7] LA[6] LA[5] LA[4] LA[3] LA[2] LA[1] LA[0] LA[22]

LMD[15] LMD[7] LMD[14] LMD[6] LMD[13] LMD[5] LMD[12] LMD[4] LMD[11] LMD[3] LMD[10] LMD[2] LMD[9] LMD[1] LMD[8] LMD[0]

C151 0.01u
0.01u C153
0.01u C454
0.01u C455
0.01u C456

IC404: not installed

IC406 K3N9VIA40M-YC12Y00/ROM-HI

C448 0.01u
C449 1000P

R427 R426 R425 R424 R423 R422 R421 R420 68

HMA[22] HMA[21] HMA[20] HMA[19] HMA[18] HMA[17] HMA[16] HMA[15] HMA[14] HMA[13] HMA[12] HMA[11] HMA[10] HMA[9] HMA[8] HMA[7] HMA[6] HMA[5] HMA[4] HMA[3] HMA[2] HMA[1] HMA[0]

R435 R434 R433 R432 R431 R430 R449 R448 R447 R446 R445 R444 R443 R442 R441 R440 68

HMD[15] HMD[14] HMD[13] HMD[12] HMD[11] HMD[10] HMD[9] HMD[8] HMD[7] HMD[6] HMD[5] HMD[4] HMD[3] HMD[2] HMD[1] HMD[0]

C443(±) 0.01u
C442(±) 0.01u
C447(±) 0.01u
C448(±) 0.01u
+5D
100/10

TRANSCEIVER

IC465 HD74LV245AT
IC466 HD74LV245AT
IC467 HD74LV245AT

HMA[0] HMA[1] HMA[2] HMA[3] HMA[4] HMA[5] HMA[6] HMA[7]
HMA[8] HMA[9] HMA[10] HMA[11] HMA[12] HMA[13] HMA[14] HMA[15]
HMA[16] HMA[17] HMA[18] HMA[19] HMA[20] HMA[21] HMA[22]

HA[0] HA[1] HA[2] HA[3] HA[4] HA[5] HA[6] HA[7]
HA[8] HA[9] HA[10] HA[11] HA[12] HA[13] HA[14] HA[15]
HA[16] HA[17] HA[18] HA[19] HA[20] HA[21] HA[22] HOE

R460 R461 R462 R463 R464 R465 R466 R467 68

0.01u C465
0.01u C466
C467 0.01u

MASKROM 128M WAVE-H

IC405 E28F128J3A-150

HA[21] HA[20] HA[19] HA[18] HA[17] HA[16] HA[15] HA[14] HA[13] HA[12] HA[11] HA[10] HA[9] HA[8] HA[7] HA[6] HA[5] HA[4] HA[3] HA[2] HA[1] HA[0] HA[22]

HMD[15] HMD[7] HMD[14] HMD[6] HMD[13] HMD[5] HMD[12] HMD[4] HMD[11] HMD[3] HMD[10] HMD[2] HMD[9] HMD[1] HMD[8] HMD[0]

C452 0.01u
0.01u C455
0.01u C456
0.01u C457

IC405: not installed

IC407 K3N9VIA40M-YC12Y00/ROM-HI

C451 0.01u
C453 1000P

IC403 MSM514260C-60 DRAM 4M

RD[15] RD[14] RD[13] RD[12] RD[11] RD[10] RD[9] RD[8]

to DM-CN600
to DM-CN100
to AM-CN107 (PSR-2100)

CN5 52207-2190 CN1
CN3 52207-2890

LD[0] LD[1] LD[2] LD[3] LD[4] LD[5] LD[6] LD[7]
LSEG[0] LSEG[1] LSEG[2] LSEG[3] LSEG[4] LSEG[5] LSEG[6] LSEG[7] LSEG[8] LSEG[9] LSEG[10] LSEG[11]
SSEG[0] SSEG[1] SSEG[2] SSEG[3] SSEG[4] SSEG[5] SSEG[6] SSEG[7] SSEG[8] SSEG[9] SSEG[10] SSEG[11] SSEG[12] SSEG[13] SSEG[14] SSEG[15]
SD[4] SD[5] SD[6] SD[7]
P_BEND MODU +3.3D DGND

REG-2 REG-3 REG-4 REG-5 REG-7 REG-8

PSR-2100 only

VOCAL HARMONY TALK EFFECT MAIN LAYER
LEFT HOLD TOUTCH SUSTAIN HARMONY ECHO MONO
VARIATION PIANO& HARPSI E.PIANO ORGAN& ACCORDION PERC. GUITAR BASS
BRASS W.WIND STRINGS CHOIR&PAD SYNTH XG USER (VOICE)

CN6 OVER SIGNAL PSR-2100 only

CN7

SW52 DIRECT ACCESS
SW53 BALLANCE
SW54 CHANNEL ON/OFF
SW55 1-UP
SW56 2-UP
SW57 3-UP
SW58 4-UP
SW59 5-UP
SW60 6-UP
SW61 7-UP
SW62 8-UP
SW63 1-DOWN
SW64 2-DOWN
SW65 3-DOWN
SW66 4-DOWN
SW67 5-DOWN
SW68 6-DOWN
SW69 7-DOWN
SW70 8-DOWN
SW71 EXIT

PN2

28CC1-8820770

CN12 52207-1190

PN4

CN9 52207-1190
CN8 52207-2890

to PB2-CN16 (PSR-1100)
PB1-CN15 (PSR-2100)

CN10
CN11

BREAK INTRO MAIN-A MAIN-B
MAIN-C MAIN-D ENDING /rit. START /STOP (STYLE
FADE IN/OUT ACMP AUTO FILL OTS LINK
TRANSPOSE
PAD1
INTRO
AUTO FILL IN

to DM-CN600

to DM-CN100

to AM-CN107
(PSR-2100)

PSR-2100 only

28CC1-8820770

PN2

28CC1-8820770

PN4

28CC1-8820770

to PB2-CN16 (PSR-1100)
PB1-CN15 (PSR-2100)

to PN3-CN10
(PSR-1100)

● PSR-1100

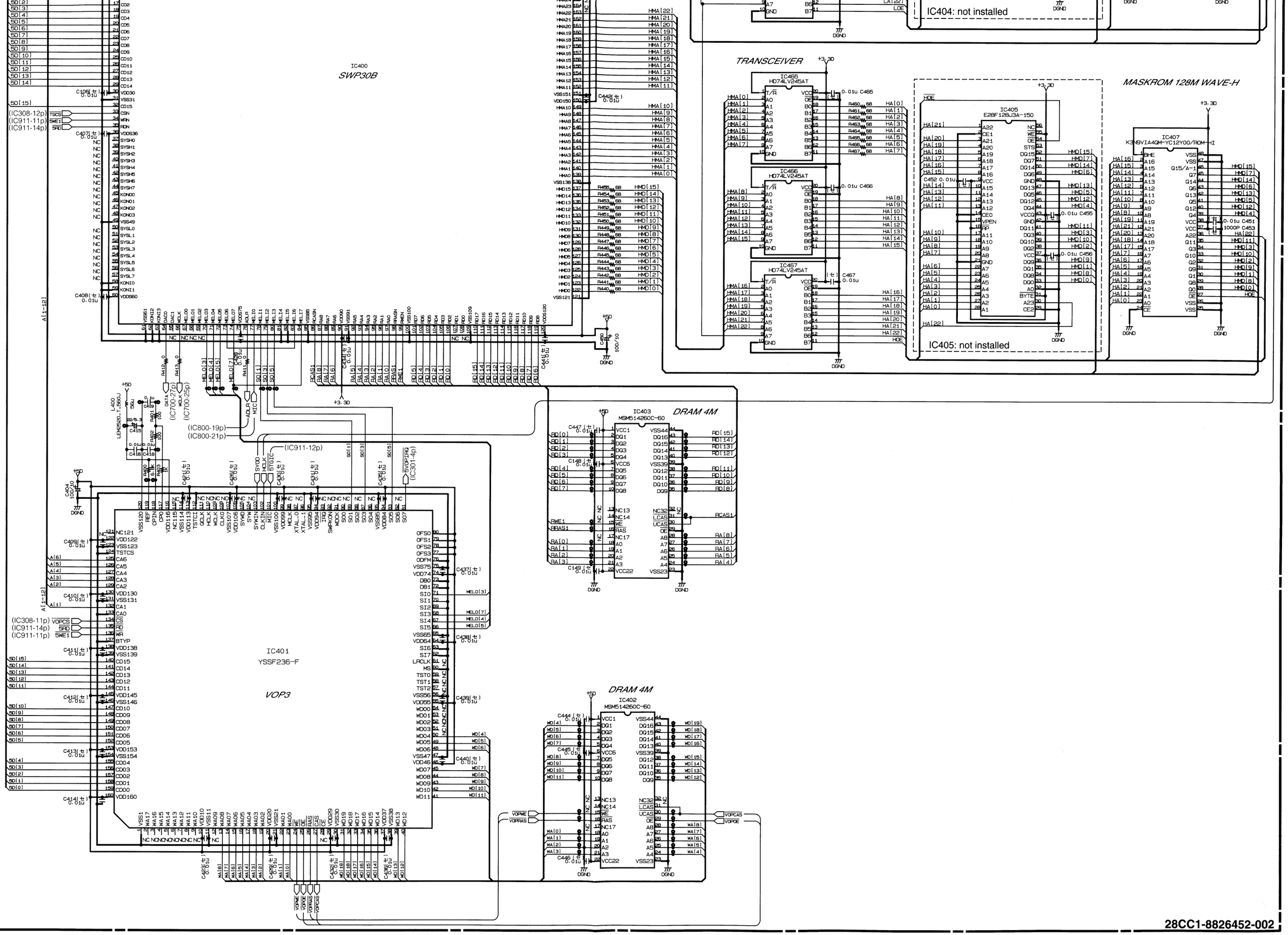
PB2

PICH BEND

28CC1-8820770

● PSR-2100

● PSR-2100 only


IC400
SWP30B
IC401
YSSF236-F
VOP3
IC403
MSM514260C-60
DRAM 4M
IC402
MSM514260C-60
DRAM 4M
TRANSCEIVER
IC465
HD74LV245AT
IC466
HD74LV245AT
IC467
HD74LV245AT
IC404: not installed
IC405
E28F128J3A-150
IC405: not installed
MASKROM 128M WAVE-H
IC407
K5N5GVIA4QM-YC12Y00/ROM-HI
(IC308-12p)
(IC911-11p)
(IC911-14p)
(IC308-11p)
(IC911-14p)
(IC911-11p)
(IC800-19p)
(IC800-21p)
(IC911-12p)
(IC301-4p)
(IC700-27p)
(IC700-25p)
L400
LBM2520_T_560J
+5D
+3.3D
DGND
28CC1-8826452-002
PSR-1100/PSR-2100

IC404: not installed

TRANSCEIVER

IC465 HD74LV245AT
IC466 HD74LV245AT
IC467 HD74LV245AT

IC405 E28F128J3A-150

IC405: not installed

MASKROM 128M WAVE-H

IC407 K3N9V1A4QM-YC12Y00/ROM-HI

DRAM 4M

IC403 MSM514260C-60

DRAM 4M

IC402 514260C-60

to PB2-CN16 (PSR-1100)
PB1-CN15 (PSR-2100)

to MOD-CN14 (PSR-2100)

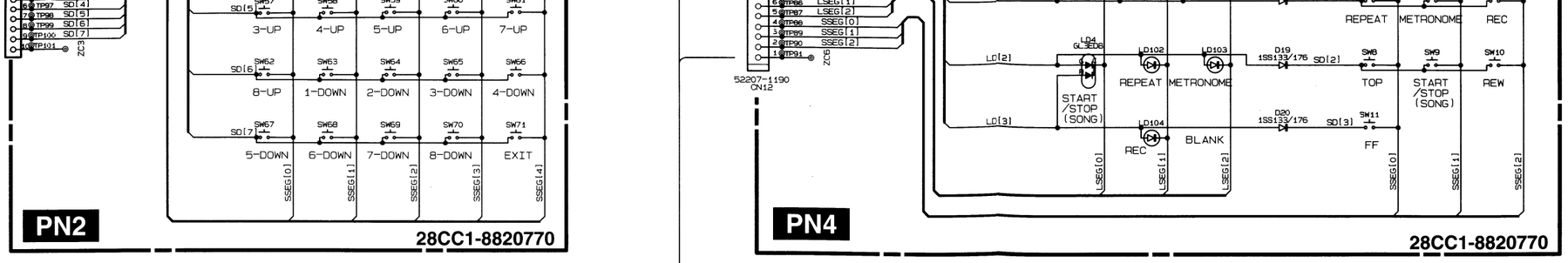
PN2

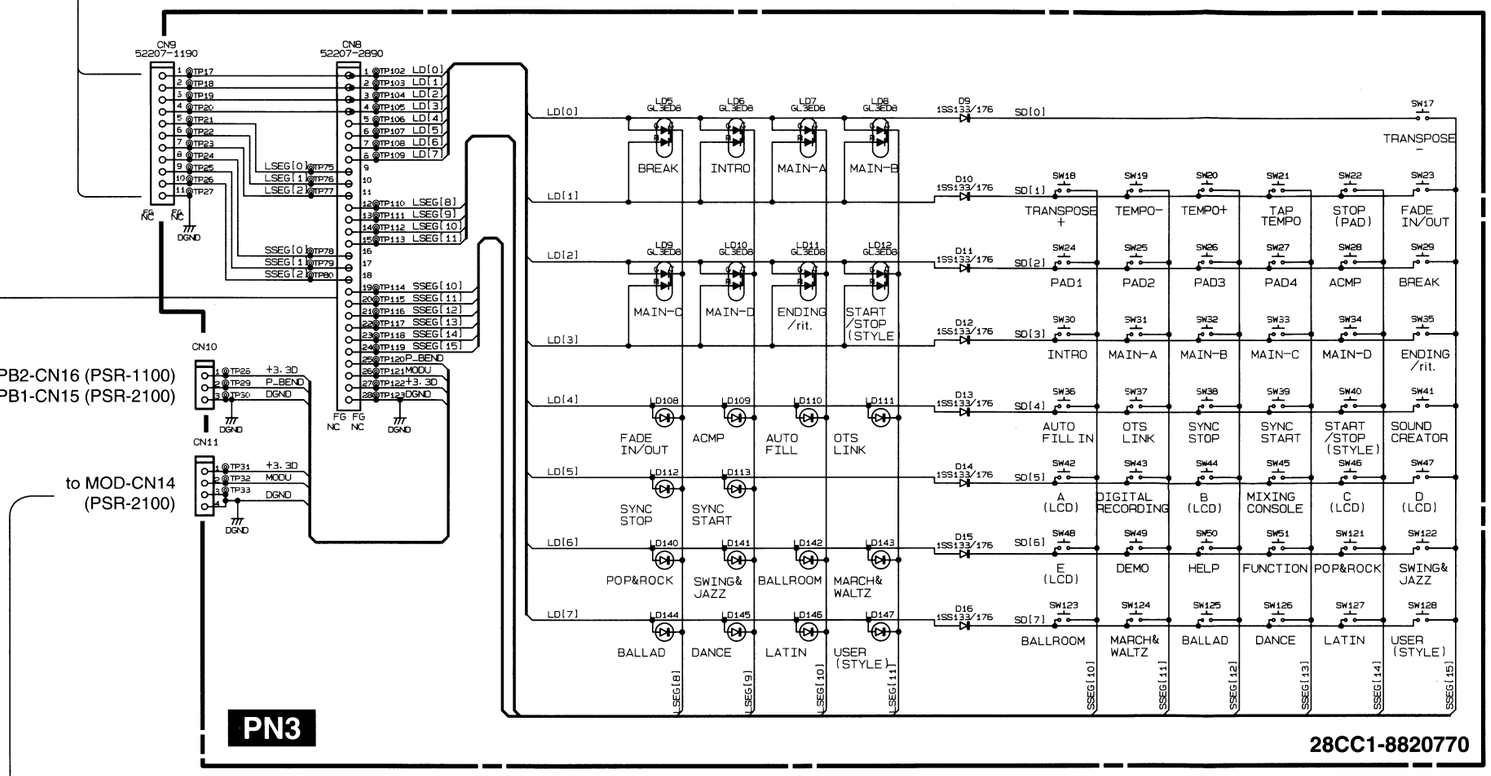
PN3

PN4

28CC1-8820770

28CC1-8826452-002





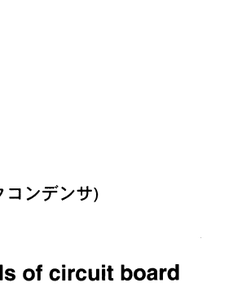
to PB2-CN16 (PSR-1100)
PB1-CN15 (PSR-2100)

to MOD-CN14 (PSR-2100)

to PN3-CN10 (PSR-1100)

to PN3-CN10 (PSR-2100)

to PN3-CN11 (PSR-2100)



(セ): Ceramic Capacitor （セラミックコンデンサ）

Note: See parts list for details of circuit board component parts.
注: シートの部品詳細はパーツリストをご参照下さい。

■ PSR-1100/PSR-2100 OVERALL CIRCUIT DIAGRAM (AM, VR, HP, SW, MKS5F, MK-L, MK-H)

PSR-2100 only

to PN1-CN6

Red Green

CN107

MIC/LINE IN

LINE MIC

SW101 SSSF122

LINE ↔ MIC

A10K

INPUT VOLUME

OP AMP

HPF : fc=15Hz

LED DRIVER

HPF : fc=34Hz

to DM-CN700

CN101

DGND
SMIC-E
AGND2
MIC_OUT

VR

MASTER VOLUME

A10K X 2

28CC1-8826450

CN100 CN102 CN103 CN908

to DM-CN908

SW

STANDBY/ON

28CC1-8826450

CN104

Power Supply

DC IN

Equalizer Value					
	PSR 1100	PSR 2100		PSR 1100	PSR 2100
R112, R117	22K	18K	C122, C127	0.22u	0.47u
R122, R127	220	560	C133, C138	0.82u	0.33u
R113, R118	560	1.2K	C123, C128	0.068u	0.047u
R123, R128	18K	22K	C134, C139	0.18u	0.39u
R114, R119	1.2K	3.9K	C124, C129	0.012u	6800P
R124, R129	22K	18K	C135, C140	0.047u	0.033u
R115, R120	1.0K	150	C125, C130	5600P	3900P
R125, R130	22K	22K	C136, C141	0.022u	0.018u
R116, R121	15K	15K	C126, C131	3900P	0.012u
R126, R131	2.7K	5.6K	C137, C142	560P	1000P

EQUALIZER

OP AMP

POWER AMP 0.65W 2ch

POWER AMP 7W 2ch

POWER AMP 17W

HPF 6KHz -12dB/Oct

LPF 6KHz -12dB/Oct

HPF : fc=55Hz 1000x

HPF : fc=34Hz 1000x

ATT : -6.0dB

ATT : -13.3dB

ATT value		
	PSR 1100	PSR 2100
R166, R167	3.3K	2.2K
R168, R169	100	100

ATT value		
	PSR 1100	PSR 2100
R152, R153	2.2K	1.8K
R156, R157	330	560

ATT value		
	PSR 1100	PSR 2100
R154, R155	2.2K	2.7K
R158, R159	330	470

C110, C111	
PSR 1100	0.1/50
PSR 2100	47/16

C115, C116	
PSR 1100	2.2/50
PSR 2100	47/16

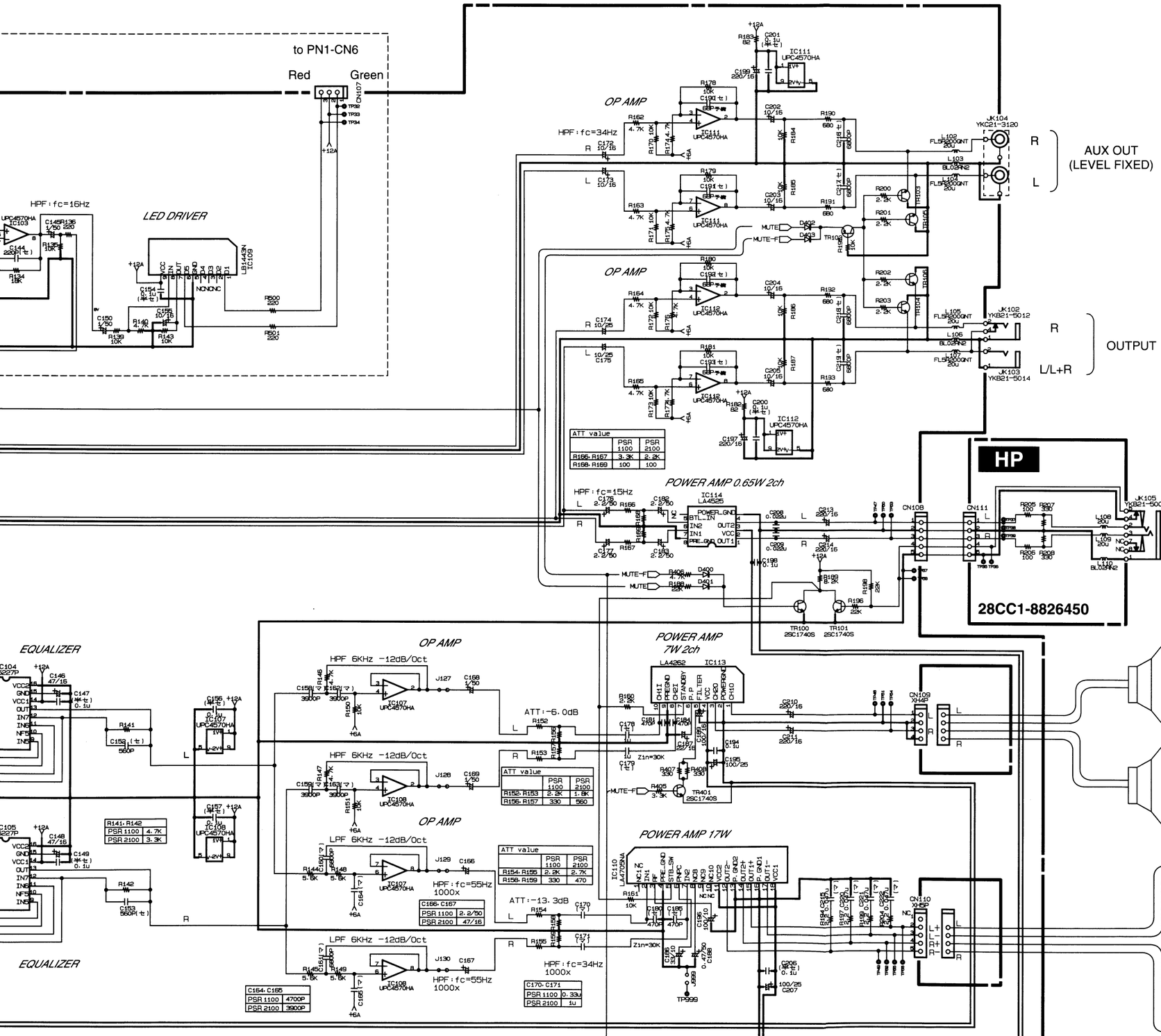
R141, R142	
PSR 1100	4.7K
PSR 2100	3.3K

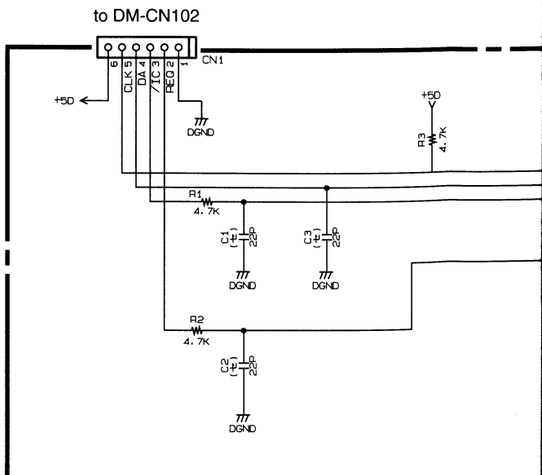
C164, C165	
PSR 1100	4700P
PSR 2100	3900P

C166, C167	
PSR 1100	2.2/50
PSR 2100	47/16

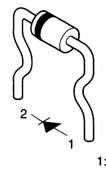
C170, C171	
PSR 1100	0.33u
PSR 2100	1u

H)



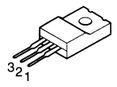


• S3V20 (VR313500)
DIODE



1: AN
2: CA

• NJM7812FA(XJ608A0
REGULATOR +12V



1: O
2: C
3: IN

■ TO SERVICE

Critical Componen
Components havin
and must be replac
equel to those orig

⚠印の部品は、安全
交換する場合は、安

Note: See part
compon
注：シートの

•S3V20 (VR313500) DIODE 1: ANODE 2: CATHODE	•SI-8050S(LF1111) (X0548A00) DC-DC CONVERTER 1: V in 2: SW OUT 3: GND 4: V os 5: S.S	•NJM78L05UA(XJ598A00) REGULATOR +5V 1: OUTPUT 2: COMMON 3: INPUT
•NJM7812FA(XJ608A00) REGULATOR +12V 1: OUTPUT 2: COMMON 3: INPUT	• µPC2933T-E1 (XS516A00) REGULATOR +3.3V 1: V in 2: GND 3: V out	

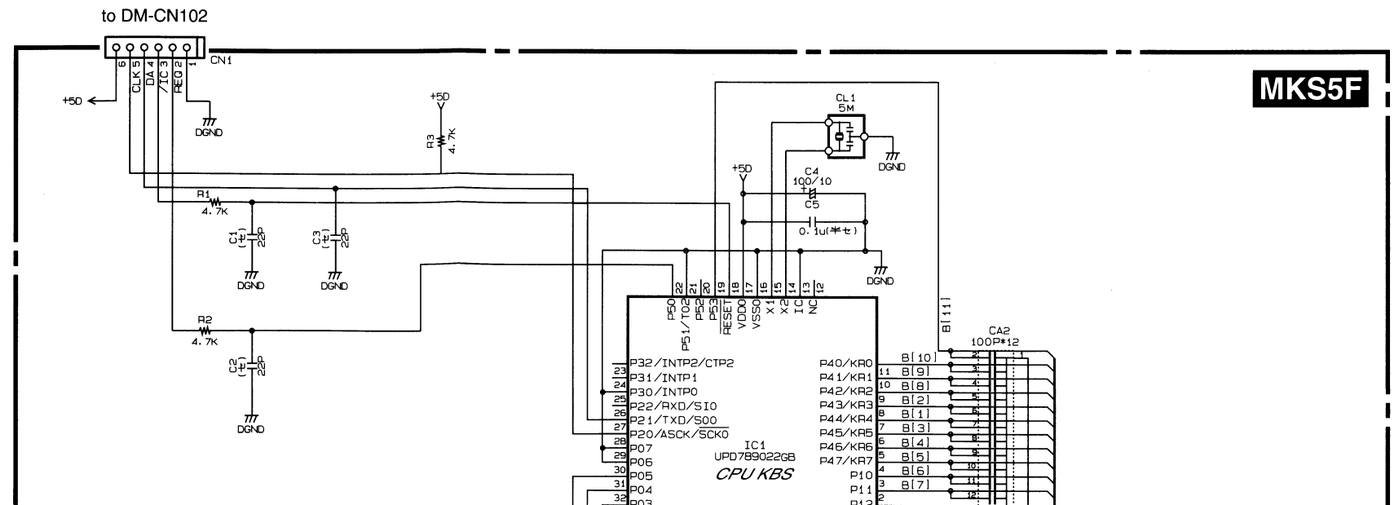
■ TO SERVICE PERSONNEL

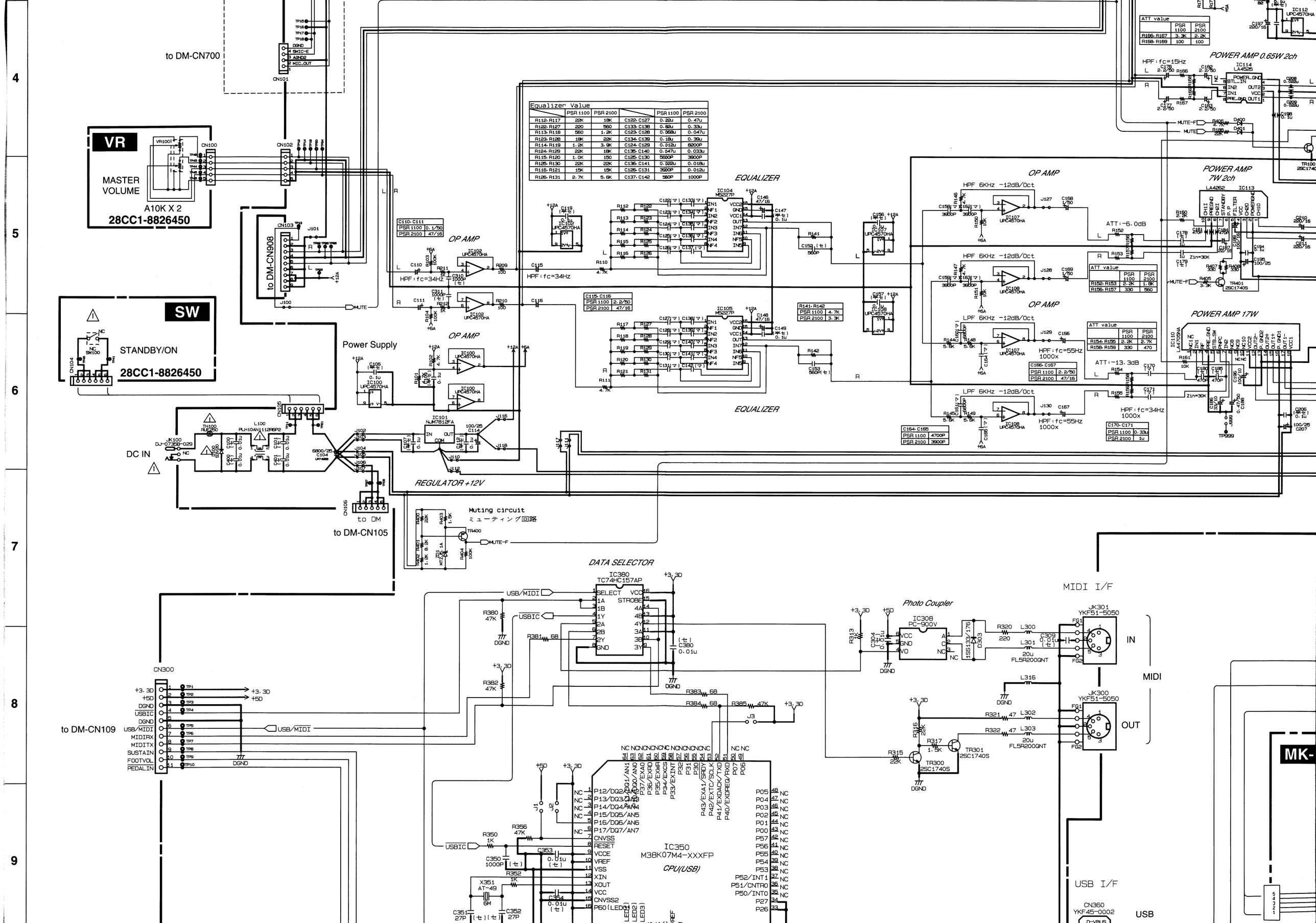
Critical Components Information
Components having special characteristics are marked⚠ and must be replaced with parts having specifications equel to those originally installed.

⚠印の部品は、安全を維持するために重要な部品です。
交換する場合は、安全のために必ず指定の部品をご使用下さい。

Note: See parts list for details of circuit board component parts.
注: シートの部品詳細はパーツリストをご参照下さい。

(マ): Mylar Capacitor (マイラーコンデンサ)
(セ): Ceramic Capacitor (セラミックコンデンサ)
(半セ): Semiconductive Cera Cap (半導体セラミックコンデンサ)




to DM-CN700
CN101
DGND
MIC-E
AGND
MIC.OUT
VR
MASTER VOLUME
A10K X 2
28CC1-8826450
VR100
CN100
CN102
CN103
to DM-CN908
J101
J100
MUTE
SW
STANDBY/ON
28CC1-8826450
CN104
SW100
Power Supply
DC IN
JK100
DJ-07358-029
TH100
PLH10AN112R5P2
L100
PLH10AN112R5P2
CN105
J102
J103
J104
J106
J107
J116
J118
J110
J112
IC101
NJM7812FA
REGULATOR +12V
to DM
to DM-CN105
Muting circuit
ミューティング回路
TR400
MUTE-F
R400 22K
R403 1.5K
R401 1.2K 8.2K
R402 10K
ZD1 1A
MTZ5.1A
C110-C111
PSR 1100 0.1/50
PSR 2100 47/16
OP AMP
IC102 UPC4570HA
HPF : fc=34HZ
C115
HPF : fc=34Hz
C115-C116
PSR 1100 2.2/50
PSR 2100 47/16
IC100 UPC4570HA
EQUALIZER
IC104 M5227P
IC105 M5227P
Equalizer Value
PSR 1100 PSR 2100 PSR 1100 PSR 2100
R112, R117 22K 18K C122, C127 0.22u 0.47u
R122, R127 220 560 C133, C138 0.82u 0.33u
R113, R118 560 1.2K C123, C128 0.068u 0.047u
R123, R128 18K 22K C134, C139 0.18u 0.39u
R114, R119 1.2K 3.9K C124, C129 0.012u 8200P
R124, R129 22K 18K C135, C140 0.047u 0.033u
R115, R120 1.0K 150 C125, C130 5600P 3900P
R125, R130 22K 22K C136, C141 0.022u 0.018u
R116, R121 15K 15K C126, C131 3900P 0.012u
R126, R131 2.7K 5.6K C137, C142 560P 1000P
R141, R142
PSR 1100 4.7K
PSR 2100 3.3K
C153 560P(ヒ)
C164, C165
PSR 1100 4700P
PSR 2100 3900P
OP AMP
HPF 6KHz -12dB/Oct
LPF 6KHz -12dB/Oct
IC107 UPC4570HA
IC108 UPC4570HA
HPF : fc=55Hz 1000x
HPF : fc=34Hz 1000x
ATT : -6.0dB
ATT : -13.3dB
ATT value
PSR 1100 PSR 2100
R152, R153 2.2K 1.8K
R156, R157 330 560
R154, R155 2.2K 2.7K
R158, R159 330 470
C166, C167
PSR 1100 2.2/50
PSR 2100 47/16
C170, C171
PSR 1100 0.33u
PSR 2100 1u
ATT value
PSR 1100 PSR 2100
R166, R167 3.3K 2.2K
R168, R169 100 100
POWER AMP 0.65W 2ch
IC114 LA4525
POWER AMP 7W 2ch
IC113 LA4262
TR401 2SC1740S
POWER AMP 17W
IC110 LA4705NA
TP999
MUTE-F
MUTE
TR100 2SC1740
DATA SELECTOR
IC380 TC74HC157AP
USB/MIDI
USBIC
R380 47K
R381 68
R382 47K
R383 68
R384 68
R385 47K
C380 0.01u
IC350 M38K07M4-XXXFP
CPU(USB)
R350 1K
R352 1K
R356 47K
C350 1000P(セ)
C353 0.01u(セ)
C354 0.01u(セ)
X351 AT-49 6M
C351 27P(セ)
C352 27P(セ)
CN300
to DM-CN109
TP1 +3.3D
TP2 +5D
TP3 DGND
TP4 USBIC
TP5 DGND
TP6 USB/MIDI
TP7 MIDIRX
TP8 MIDITX
TP9 SUSTAIN
TP10 FOOTVOL
PEDALIN
MIDI I/F
Photo Coupler
IC308 PC-900V
JK301 YKF51-5050
JK300 YKF51-5050
IN
OUT
MIDI
R313 1K
C304 0.01u
R320 220
R321 47
R322 47
L300
L301
L302
L303
L316
C309 0.01u(セ)
20u FL5R200QNT
R315 22K
R316 22K
R317 1.5K
TR300 2SC1740S
TR301 2SC1740S
USB I/F
CN360 YKF45-0002
USB
MK-

EQUALIZER

OP AMP

POWER AMP 7W 2ch

POWER AMP 17W

POWER AMP 0.65W 2ch

HP

28CC1-8826450

PHONES

Tweeters

Woofers

28CC1-8826450-001

MIDI I/F

Photo Coupler

IN

OUT

MIDI

USB I/F

USB

to DM-CN102

MK-H (A#3 ~ C6)

A#3 B3 C4 C#4 D4 D#4 E4 F4 F#4 G4 G#4 A4 A#4 B4 C5 C#5

1M 2M

Critical Components Information
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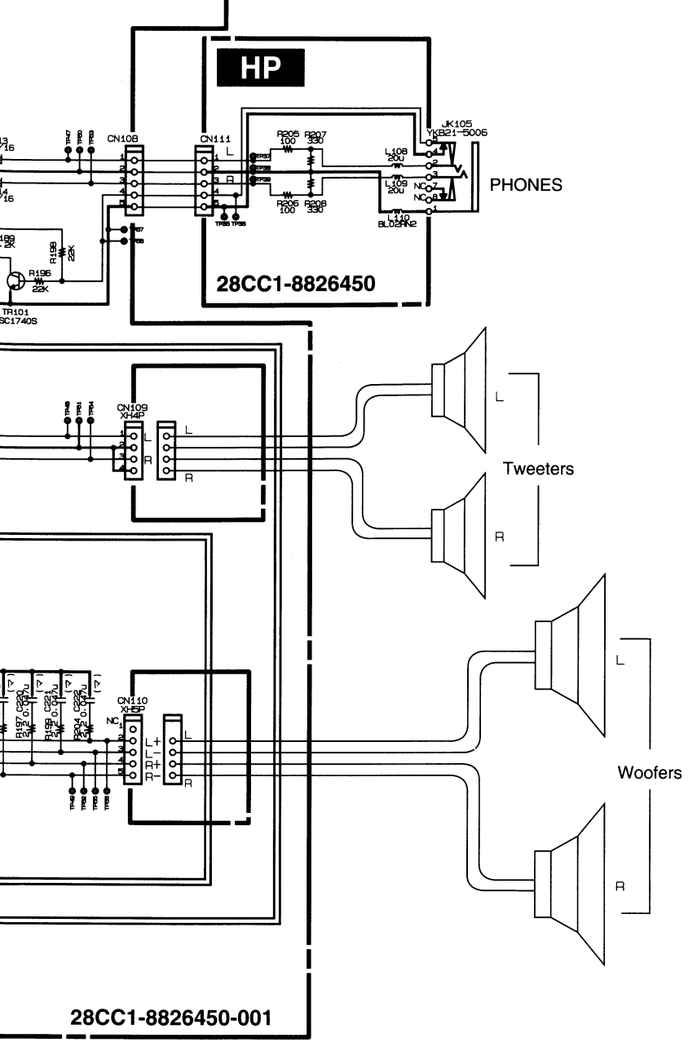
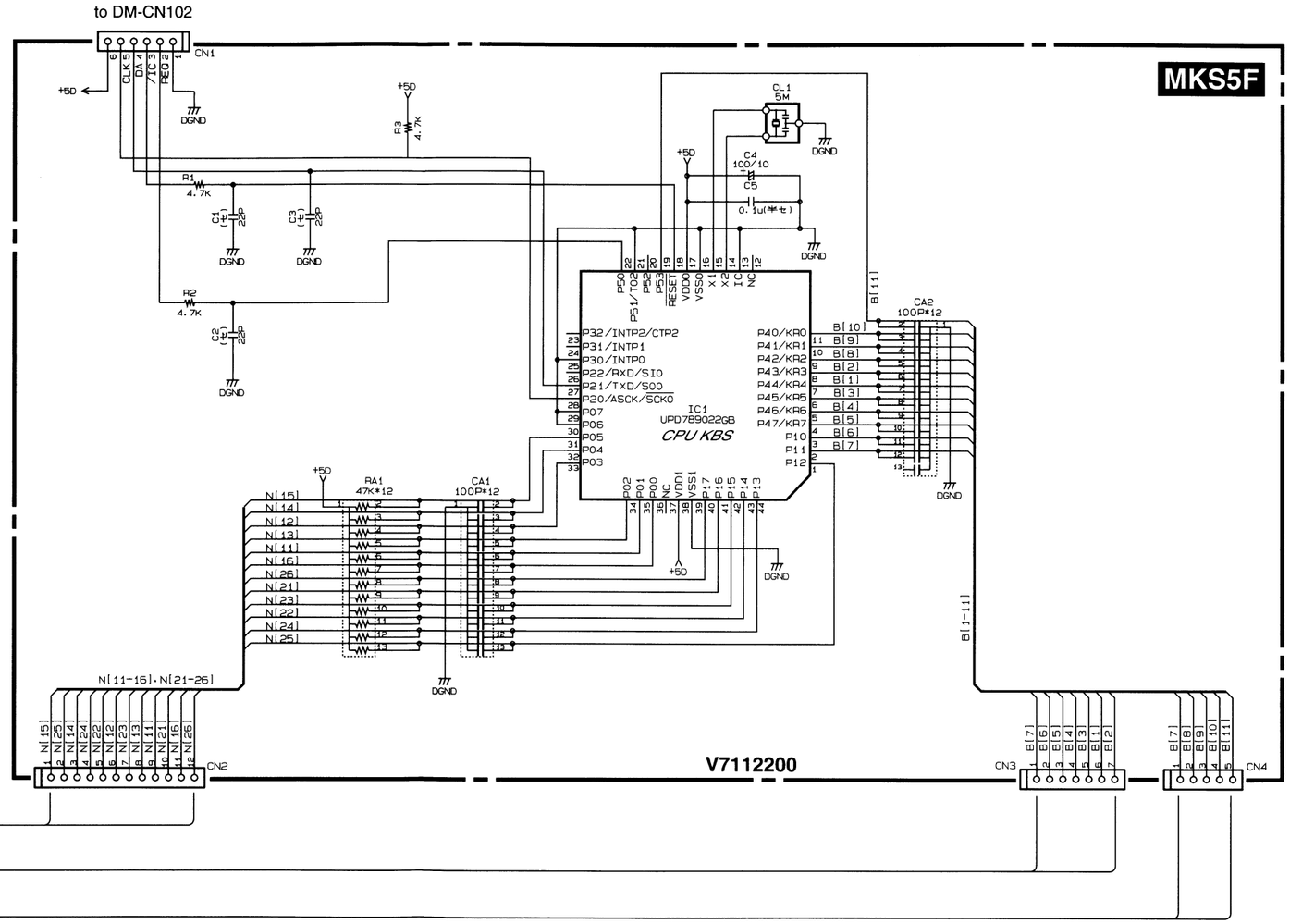
Note: See parts list for details of circuit board component parts.
注: シートの部品詳細はパーツリストをご参照下さい。

(マ): Mylar Capacitor (マイラーコンデンサ)
(セ): Ceramic Capacitor (セラミックコンデンサ)
(半セ): Semiconductive Cera Cap (半導体セラミックコンデンサ)





(A#3 ~ C6)

REGULATOR +12V

to DM

to DM-CN105

Muting circuit
ミューティング回路

TR400

MUTE-F

DATA SELECTOR

IC380
TC74HC157AP

USB/MIDI

USBIC

MIDI I/F

Photo Coupler

IC308
PC-900V

JK301
YKF51-5050

IN

MIDI

JK300
YKF51-5050

OUT

CN300

to DM-CN109

IC350
M38K07M4-XXXFP

CPU(USB)

USB I/F

CN360
YKF45-0002

USB

CN303

LCD CONTRAST

to DM-CN501

B10K

VR300
RK09K1110

JK303
YKB21-5012

SUSTAIN

2

FOOT PEDAL

JK304
LGR4609-7000

FOOTVOL

1
(SWITCH)

AM

: Don't mount parts inside the dotted line.
(! 内は未実装)

28CC1-8826450-002

PSR-1100/PSR-2100

28CC1-8826450-001

MIDI I/F

Photo Coupler

IC308 PC-900V

JK301 YKF51-5050 — IN

JK300 YKF51-5050 — OUT

MIDI

USB I/F

CN360 YKF45-0002 — USB

FOOT PEDAL

JK303 YKB21-5012 — SUSTAIN — 2

JK304 LGR4609-7000 — FOOTVOL — 1 (SWITCH)

: Don't mount parts inside the dotted line.
（ ］内は未実装）

28CC1-8826450-002

MK-H (A#3 ~ C6)

A#3 1M 2M B3 C4 C#4 D4 D#4 E4 F4 F#4 G4 G#4 A4 A#4 B4 C5 C#5

MK-L (C1 ~ A3)

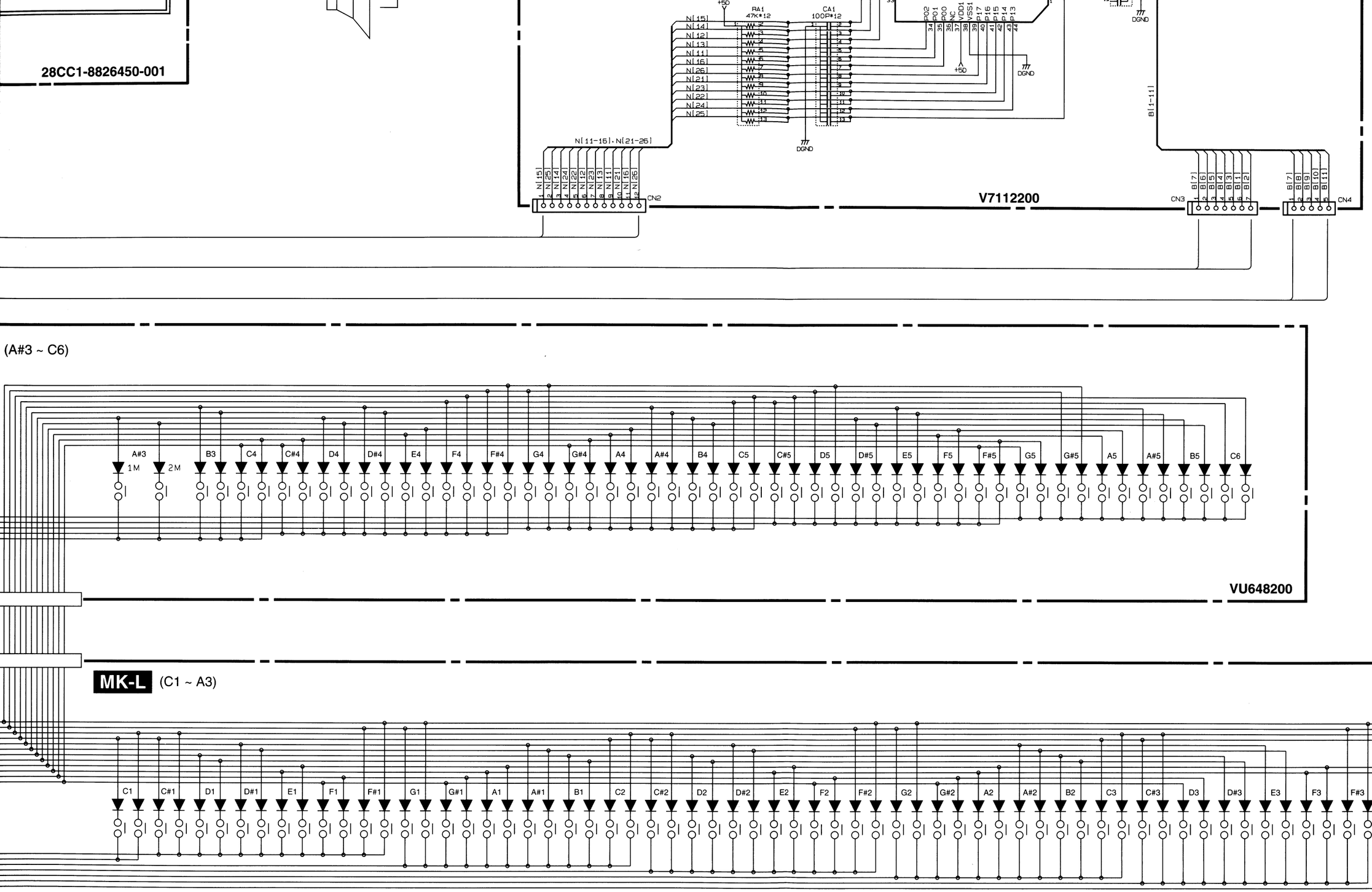
C1 C#1 D1 D#1 E1 F1 F#1 G1 G#1 A1 A#1 B1 C2 C#2 D2 D#2 E2

CN2

RA1 47K*12

N[11-16],N[21-26]

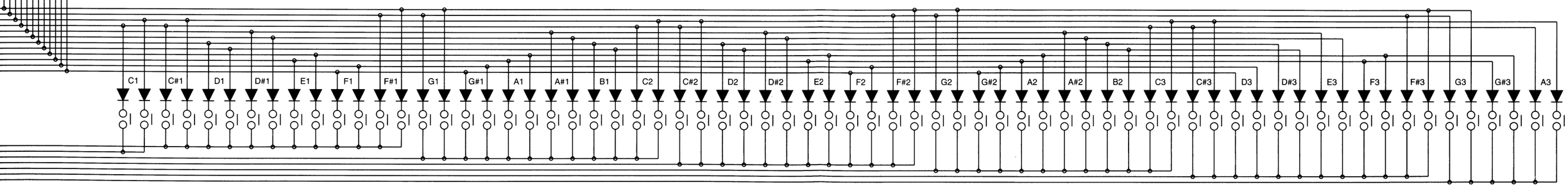
E	F	G	H	I	J	K	L	M



(A#3 ~ C6)

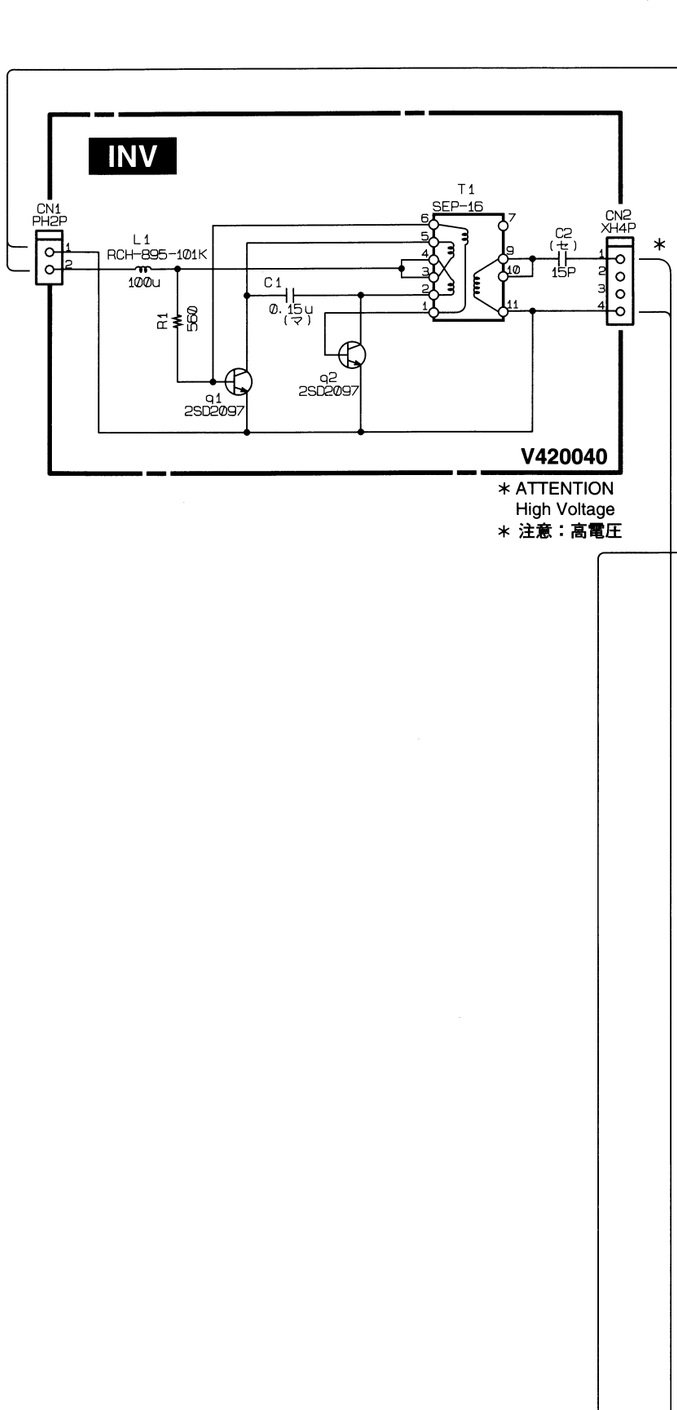
VU648200

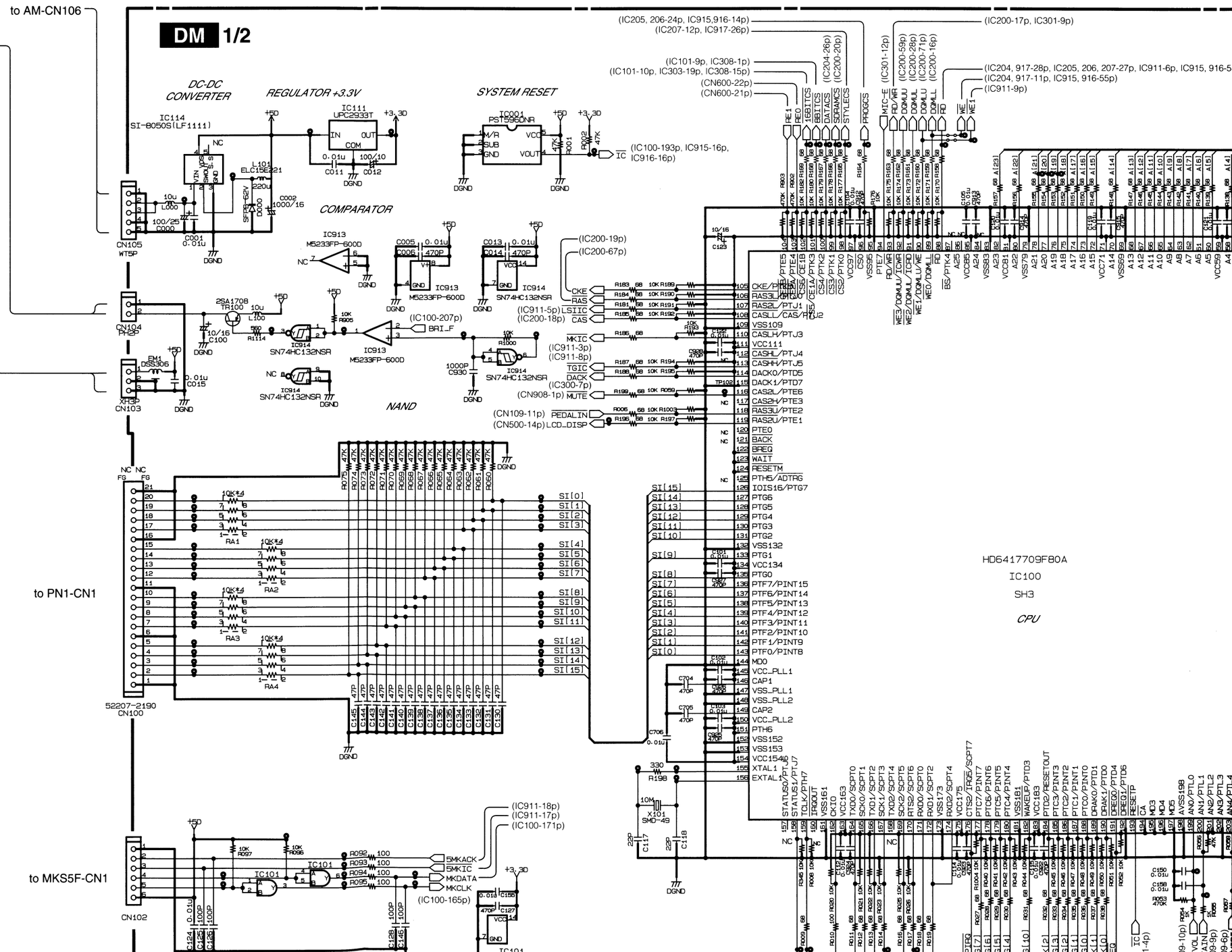
MK-L (C1 ~ A3)

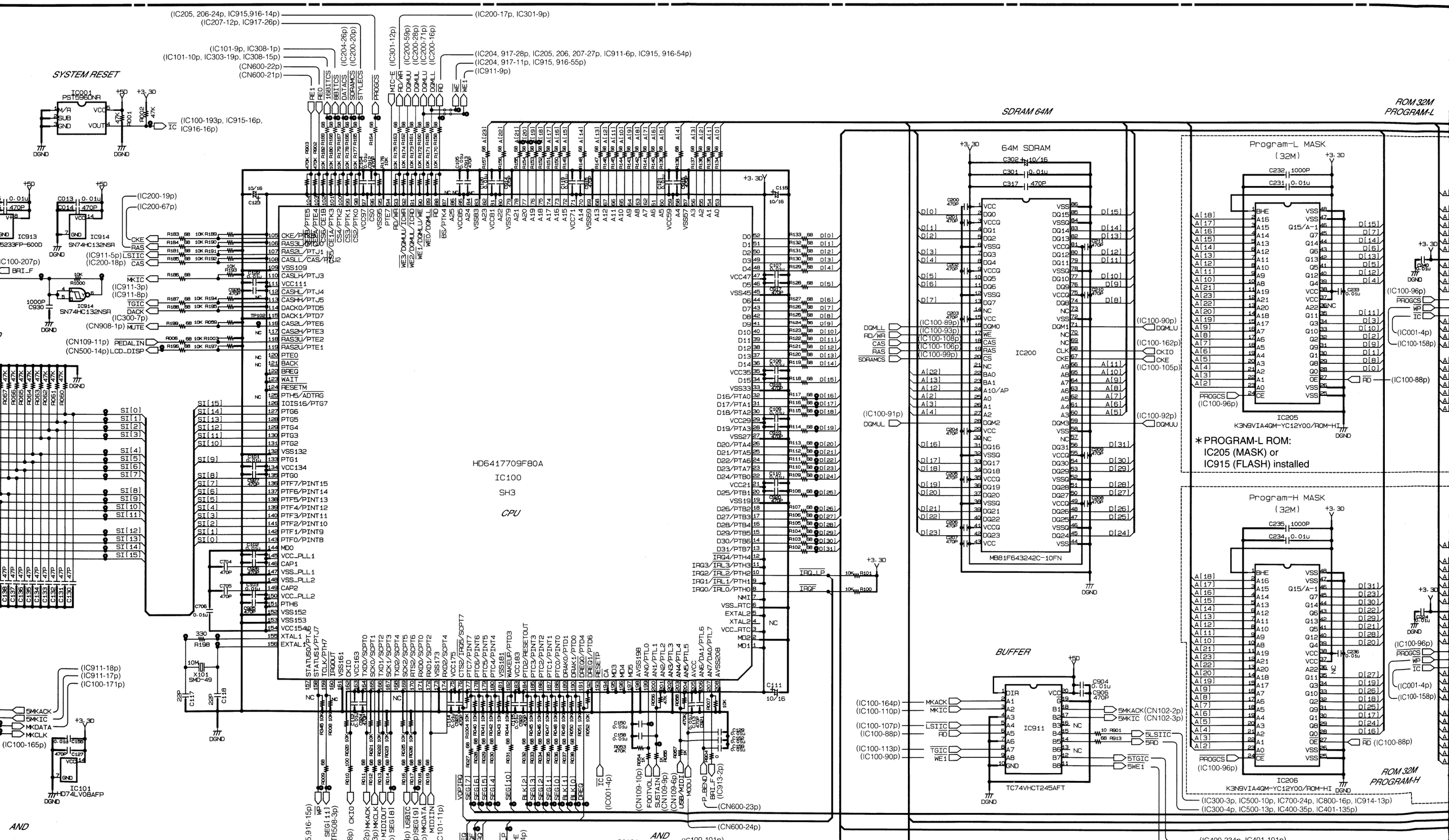


VU648100

■ PSR-2100 OVERALL CIRCUIT DIAGRAM (DM1/2, INV)






SYSTEM RESET
IC001
PST596DNR
HD6417709F80A
IC100
SH3
CPU
SDRAM 64M
64M SDRAM
MB81F643242C-10FN
IC200
ROM 32M
PROGRAM-L
Program-L MASK
(32M)
IC205
K3N9VIA4QM-YC12Y00/ROM-HI
* PROGRAM-L ROM:
IC205 (MASK) or
IC915 (FLASH) installed
Program-H MASK
(32M)
IC206
K3N9VIA4QM-YC12Y00/ROM-HI
ROM 32M
PROGRAM-H
BUFFER
IC911
TC74VHCT245AFT
IC914
SN74HC132NSR
IC913
IC101
HD74LV08AFP
X101
SMD-49
AND
AND

SDRAM 64M

ROM 32M PROGRAM-L

ROM 64M STYLE/PARA

64M SDRAM

IC200

MB81F643242C-10FN

Program-L MASK (32M)

IC205 K3N9VIA4QM-YC12Y00/ROM-HI

Program-L FLASH (32M)

IC915 E28F320J3A-110

Style MASK (64M)

IC207 K3N9VIA4QM-YC12Y00/ROM-HI

Style P2 ROM (64M)

IC917 TC58FVB641FT-10

* PROGRAM-L ROM: IC205 (MASK) or IC915 (FLASH) installed

* IC207: not installed

FRASH ROM 16M DATA STORAGE

DataStorage (16M)

IC204 MBM29LV160BE-70TN

Program-H MASK (32M)

IC206 K3N9VIA4QM-YC12Y00/ROM-HI

Program-H FLASH (32M)

IC916 E28F320J3A-110

ROM 32M PROGRAM-H

* PROGRAM-H ROM: IC206 (MASK) or IC916 (FLASH) installed

BUFFER

IC911 TC74VHCT245AFT

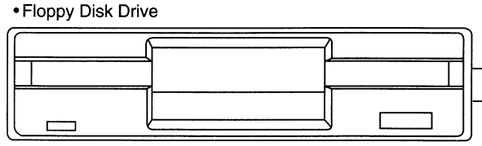
(CN600-23p)

(CN600-24p)

(IC300-3p, IC500-10p, IC700-24p, IC800-16p, IC914-13p)

(IC300-4p, IC500-13p, IC400-35p, IC401-135p)

• Floppy Disk Drive



to PN1-CN1

to MKS5F-CN1

to AM-CN300

to FDD Unit

HD6417709F80A
IC100
SH3
CPU

NAND

AND

FDC

LCD

BUFFER

SRAM 256K

HD6417709F80A

IC100

SH3

CPU

IC101 HD74LV08AFP

IC200 MB81F643242C-10FN

IC205 K3N9VIA4QM-YC12Y00/ROM-HI

* PROGRAM-L ROM:
IC205 (MASK) or
IC915 (FLASH) installed

Program-H MASK (32M)

IC206 K3N9VIA4QM-YC12Y00/ROM-HI

ROM 32M PROGRAM-H

BUFFER

IC911 TC74VHCT245AFT

IC300 HD63266F

FDC

IC301 74LVC245APW

IC302 74LVC245APW

IC303 74LVC245APW

DECODER

IC308 HD74LVC139FP

AND

IC101

ADC

IC800 AK5351

DAC

ADDRESS BUS to DM 2/2 : A-5 (PSR-2100)

DATA BUS

IC200
MB81F643242C-10FN

IC205
K3N9VIA4QM-YC12Y00/ROM-HI

IC915
E28F320J3A-110

IC207
K3N9VIA4QM-YC12Y00/ROM-HI

IC917
TC58FVB641FT-10

* PROGRAM-L ROM:
IC205 (MASK) or
IC915 (FLASH) installed

* IC207: not installed

Program-H MASK (32M)

Program-H FLASH (32M)

IC206
K3N9VIA4QM-YC12Y00/ROM-HI

IC915
E28F320J3A-110

ROM 32M PROGRAM-H

* PROGRAM-H ROM:
IC206 (MASK) or
IC916 (FLASH) installed

FRASH ROM 16M DATA STORAGE

DataStorage (16M)

IC204
MBM29LV160BE-70TN

BUFFER

IC911
TC74VHCT245AFT

IC308
HD74LVC139FP

IC303
74LVC245APW

DECODER

IC500
SN74HCT138NSR

Transistor Array
IC501
TD62785F-TP1

ADC

IC800
AK5351

DAC

IC702 IC703
UPC4570G2

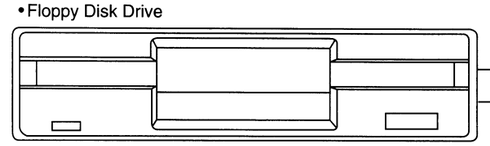
TR504 TR503 TR505 TR506 TR507 TR508
FMG11A

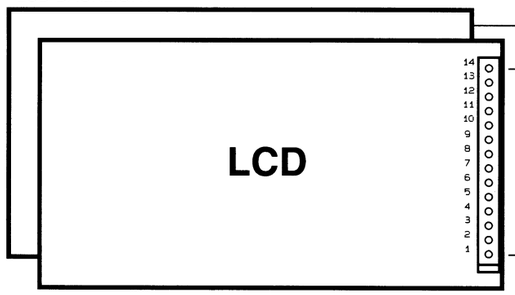
52207-2690
CN600

to PN1-CN2

ADDRESS BUS
DATA BUS

to DM 2/2 : A-5
(PSR-2100)





Note: See parts list for details of circuit board component parts.

注: シートの部品詳細はパーツリストをご参照下さい。

(マ): Mylar Capacitor (マイラーコンデンサ)

(セ): Ceramic Capacitor (セラミックコンデンサ)

to AM-CN303

to AM-CN300

IC300
HD63266F
FDC

IC500
SED1335F0B
LCDC

IC301
74LVC245APW
IC302
74LVC245APW
IC303
74LVC245APW
BUFFER

DECODER
IC308
HD74LVC139FP

ADC
IC800
AK5351

DAC
IC700
AD1854JRSRL

OP AMP
IC701
UPC4572G2-T1

IC914
SN74HC132NSR
IC510
SN74HCU04NSR
IC511
SN74HCU04NSR

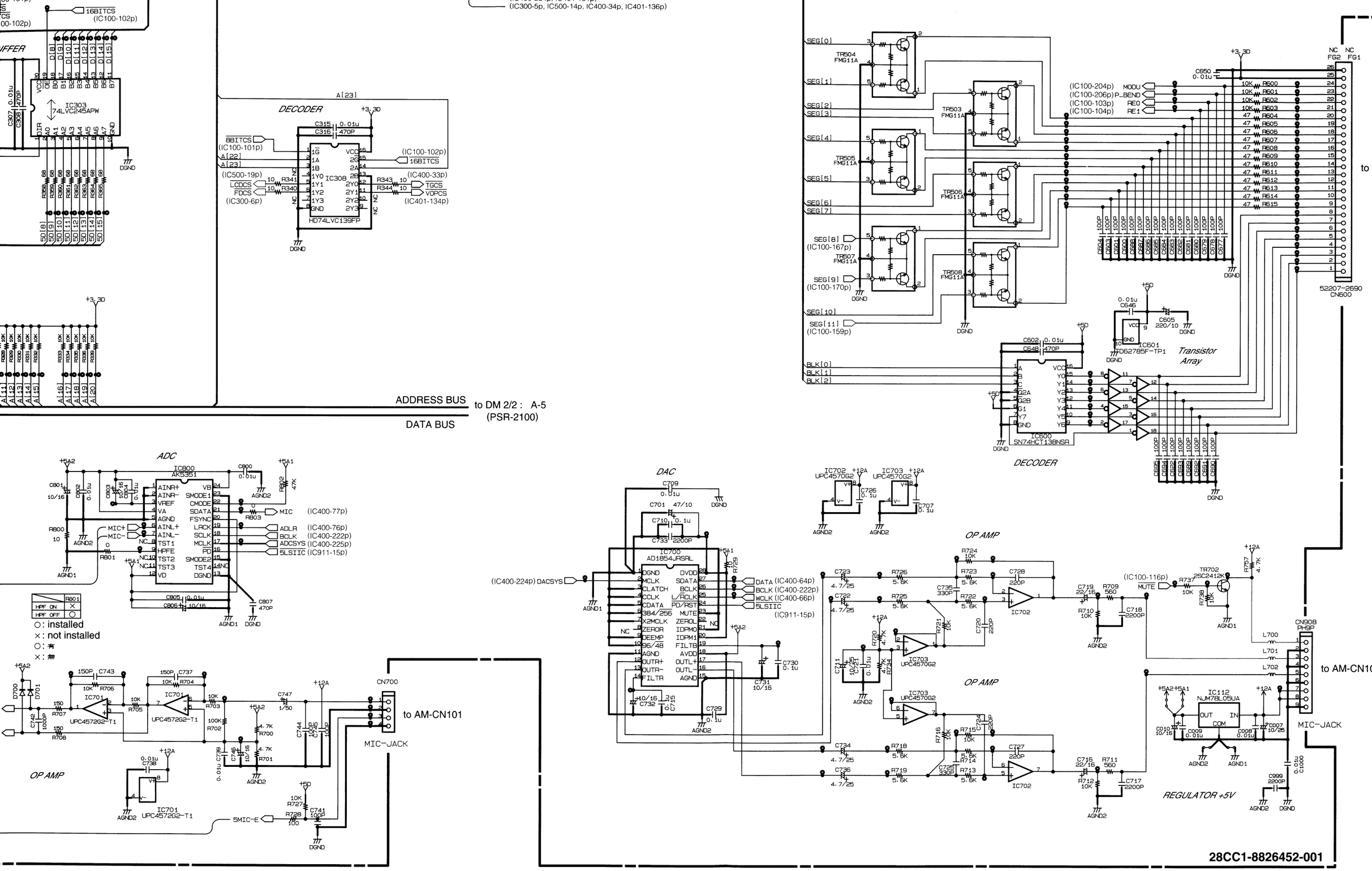
ADDRESS BUS
DATA BUS
to DM 2/2 : A-5
(PSR-2100)

to AM-CN101
MIC-JACK

○: installed
×: not installed

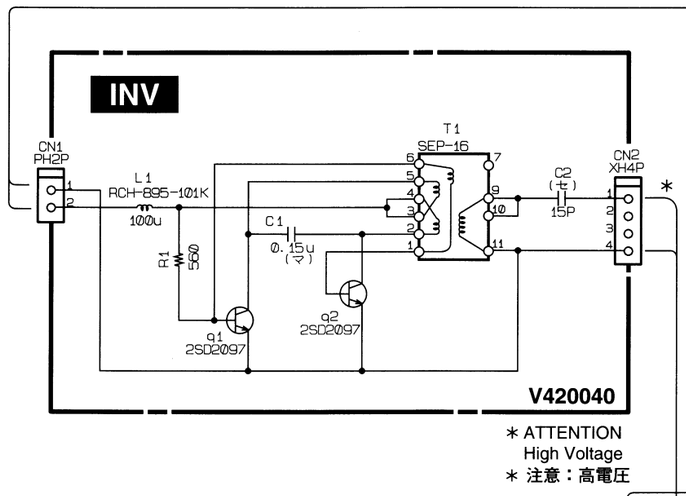
	R801
HPF ON	×
HPF OFF	○

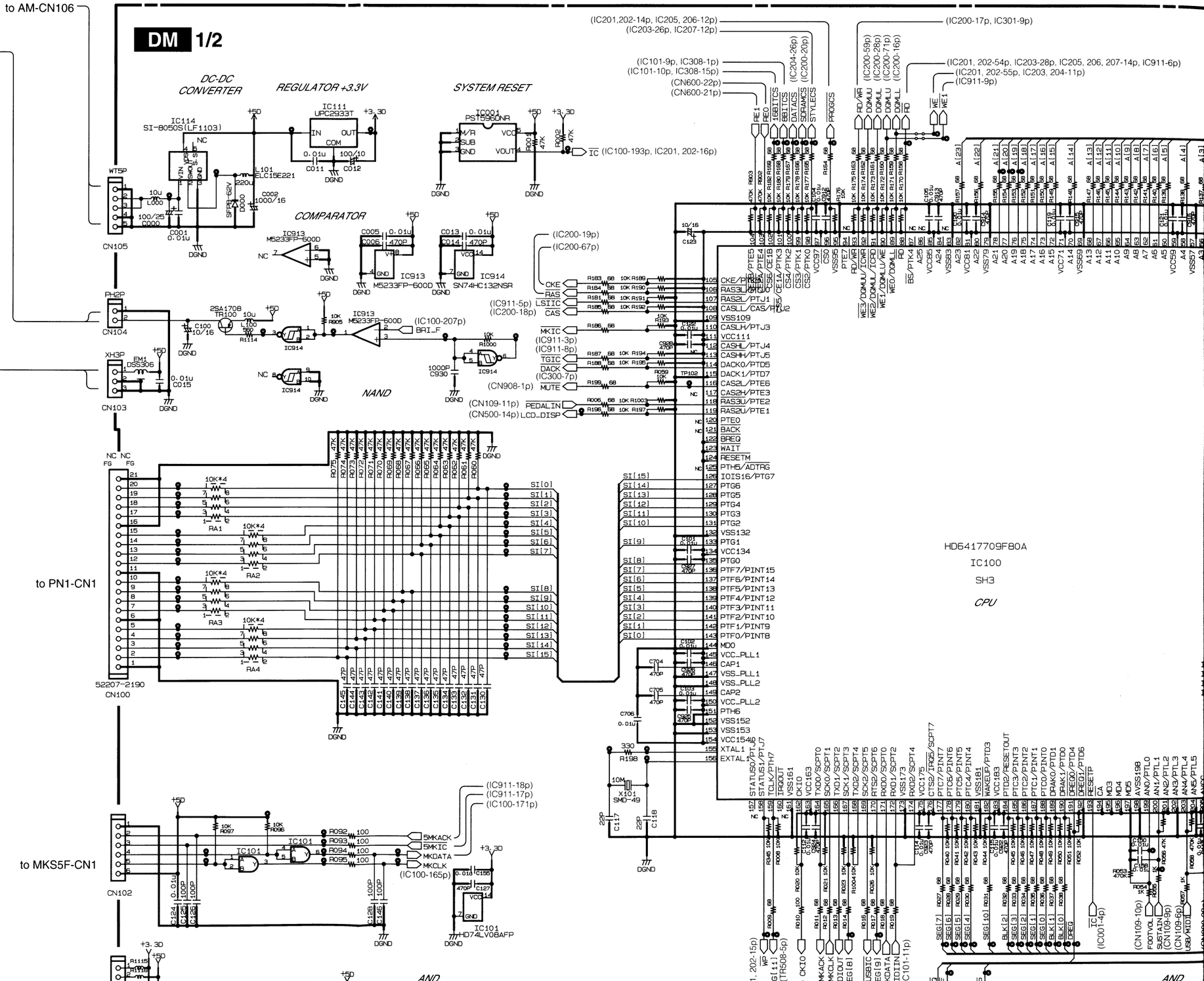
F	G	H	I	J	K	L	M


16BITCS (IC100-102p)
IC303 74LVC245APW
DECODER
A[23]
8BITCS (IC100-101p)
A[22]
A[23]
(IC500-19p)
LCDCS
FDCS
(IC300-6p)
IC308 HD74LVC139FP
(IC100-102p) 16BITCS
(IC400-33p) TGCS VOPCS (IC401-134p)
ADDRESS BUS
DATA BUS
to DM 2/2 : A-5 (PSR-2100)
(IC300-5p, IC500-14p, IC400-34p, IC401-136p)
TR504 FMG11A
TR503 FMG11A
TR505 FMG11A
TR506 FMG11A
TR507 FMG11A
TR508 FMG11A
SEG[0]
SEG[1]
SEG[2]
SEG[3]
SEG[4]
SEG[5]
SEG[6]
SEG[7]
SEG[8] (IC100-167p)
SEG[9] (IC100-170p)
SEG[10]
SEG[11] (IC100-159p)
BLK[0]
BLK[1]
BLK[2]
(IC100-204p) MODU
(IC100-206p) P_BEND
(IC100-103p) RE0
(IC100-104p) RE1
to PN1-CN2
52207-2690 CN500
IC601 D62785F-TP1 Transistor Array
IC600 SN74HCT138NSR
DECODER
ADC
IC800 AK5351
MIC (IC400-77p)
ADLR (IC400-76p)
BCLK (IC400-222p)
ADCSYS (IC400-225p)
5LSIIC (IC911-15p)
HPF ON ×
HPF OFF ○
○: installed
×: not installed
IC701 UPC4572G2-T1
CN700
to AM-CN101
MIC-JACK
5MIC-E
DAC
IC700 AD1854JRSRL
(IC400-224p) DACSYS
DATA (IC400-64p)
BCLK (IC400-222p)
WCLK (IC400-66p)
5LSIIC (IC911-15p)
OP AMP
IC702 UPC4570G2
IC703 UPC4570G2
(IC100-116p) MUTE
TR702 2SC2412K
CN908 PH9P
to AM-CN103
IC112 NJM78L05UA
REGULATOR +5V
28CC1-8826452-001
PSR-2100

I	J	K	L	M	N	O	P	Q

■ PSR-1100 OVERALL CIRCUIT DIAGRAM (DM1/2, INV)





E | F | G | H | I | J | K | L | M

SYSTEM RESET

IC1001 PST9960NR

HD6417709F80A

IC100

SH3

CPU

SDRAM 64M

64M SDRAM

IC200

MB81F643242C-10FN

Program-L MASK (32M)

IC205 KM23C32000AG-4J

Program-H MASK (32M)

IC206 KM23C32000AG-4J

ROM 32M PROGRAM-L

ROM 32M PROGRAM-H

* PROGRAM-L ROM:
IC205 (MASK) or
IC201 (FLASH) installed

BUFFER

IC911

TC74VHCT245AFT

AND

IC101 HD74LV08AFP

SDRAM 64M

64M SDRAM

IC200

MB81F643242C-10FN

BUFFER

TC74VHCT245AFT

IC911

ROM 32M PROGRAM-L

Program-L MASK (32M)

IC205 KM23C32000AG-4J

Program-L FLASH (32M)

IC201 E28F320J3A-100

* PROGRAM-L ROM: IC205 (MASK) or IC201 (FLASH) installed

ROM 32M PROGRAM-H

Program-H MASK (32M)

IC206 KM23C32000AG-4J

Program-H FLASH (32M)

IC202 E28F320J3A-100

* PROGRAM-H ROM: IC206 (MASK) or IC202 (FLASH) installed

ROM 64M STYLE/PARA

Style MASK (64M)

IC207 KM23C64000G-KF74B1

* IC207 : not installed

Style P2 ROM (64M)

IC203 TC58FVB641FT-10

DataStorage (8M)

IC204 MBM29LV160BE-70TN

FRASH ROM 8M DATA STORAGE

(IC300-3p, IC500-10p, IC700-24p, IC914-13p)

(IC300-4p, IC500-13p, IC801-152p)

(IC300-5p, IC500-14p, IC801-151p)

to PN1-CN1
to MKS5F-CN1
to AM-CN300
CN103
CN100
52207-2190
CN102
CN109
to AM
CN300
IMSA-9031B-34P-GF
HD6417709F80A
IC100
SH3
CPU
IC300
HD63266F
FDC
X300
CSTCV16.00MXJ0C
16.00M
IC101
HD74LV08AFP
AND
IC301
74LVC245APW
BUFFER
IC302
74LVC245APW
IC500
SED1335F0B
IC501
UPD43256BGU-70L-SA
SRAM 256K
(IC911-18p)
(IC911-17p)
(IC100-171p)
(IC100-165p)
(IC100-169p)
(IC100-203p)
(IC100-172p)
(IC100-166p)
(IC100-200p)
(IC100-199p)
(IC100-118p)
(IC100-114p)
(IC308-6p)
(IC911-11p)
(IC911-14p)
(IC911-15p)
(IC500-37p)
(IC100-93p)
(IC201, 202-15p)
(IC200-68p)
(IC911-2p)
(IC101-3p)
(CN109-8p)
(TR507-5p)
(CN109-4p)
(TR507.5p)
(IC101-6p)
(IC101-11p)
(IC001-4p)
(CN109-10p)
(CN109-9p)
(CN109-6p)
(CN109-7p)
(IC301-7p)
•Floppy Disk Drive
•LCD BACKLIGHT

HD6417709F80A

IC100

SH3

CPU

IC205 KM23C32000AG-4J

IC205 KM23C32000AG-4J

MB81F643242C-10FN

IC200

IC911

TC74VHCT245AFT

IC101 HD74LV08AFP

IC300 HD63266F

FDC

IC301 74LVC245APW

IC302 74LVC245APW

IC308 HD74LVC139FP

IC500 SED1335F0B

BUFFER

AND

DECODER

DAC

ROM 32M PROGRAM-H

Program-H MASK (32M)

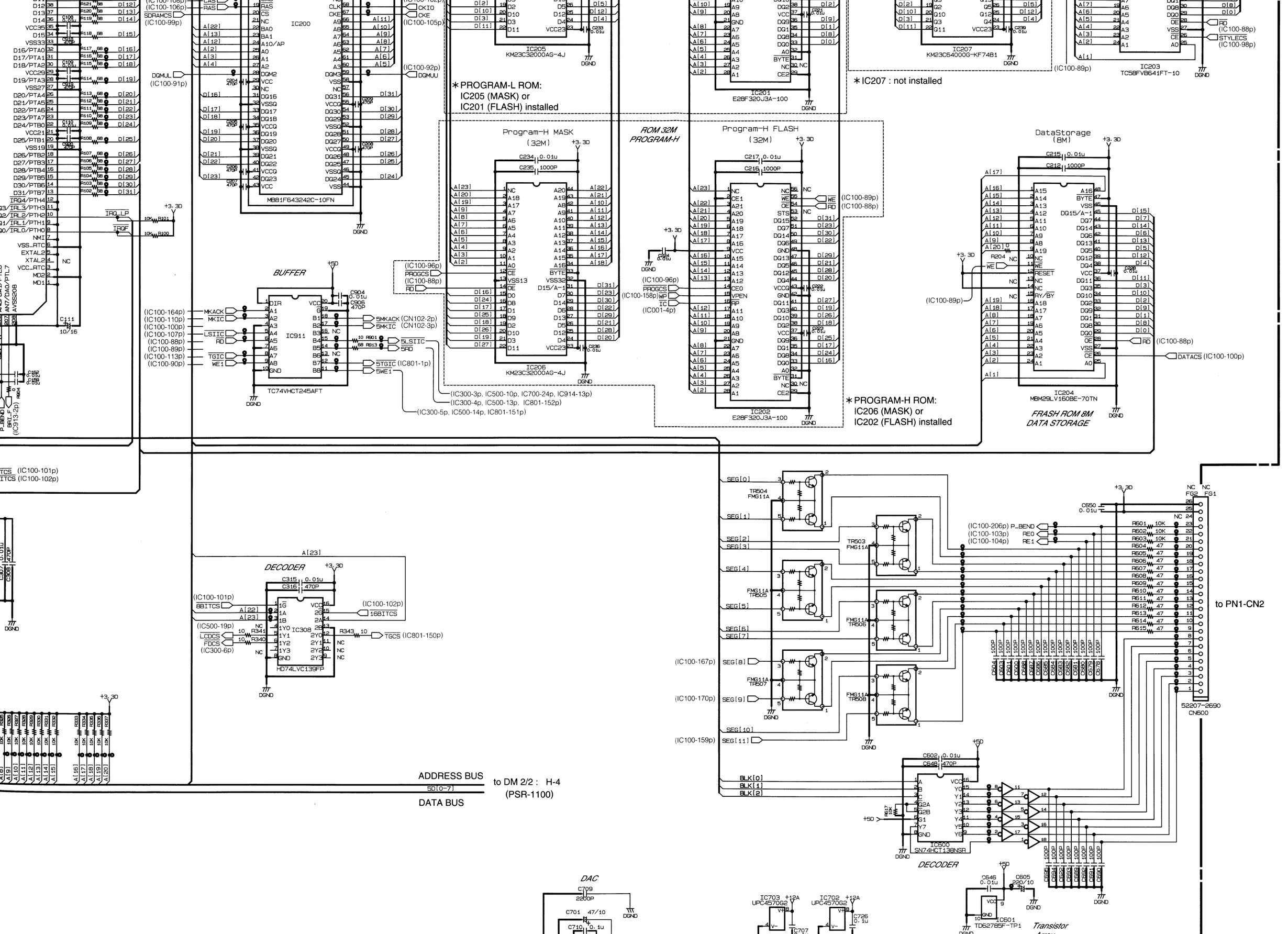
* PROGRAM-L ROM:
IC205 (MASK) or
IC201 (FLASH) installed

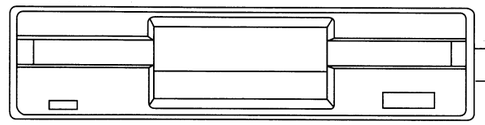
ADDRESS BUS

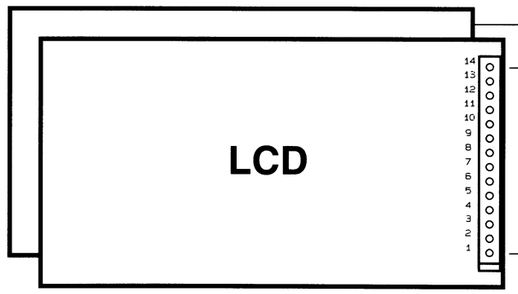
5D[0-7]

DATA BUS

to DM 2/2 : H-4 (PSR-1100)


IC200
MB81F643242C-10FN
IC205
KM23C32000AG-4J
IC201
E28F320J3A-100
IC207
KM23C64000G-KF7481
IC203
TC58FVB641FT-10
Program-H MASK
(32M)
Program-H FLASH
(32M)
ROM 32M
PROGRAM-H
IC206
KM23C32000AG-4J
IC202
E28F320J3A-100
DataStorage
(8M)
IC204
MBM29LV160BE-70TN
FRASH ROM 8M
DATA STORAGE
BUFFER
IC911
TC74VHCT245AFT
* PROGRAM-L ROM:
IC205 (MASK) or
IC201 (FLASH) installed
* IC207 : not installed
* PROGRAM-H ROM:
IC206 (MASK) or
IC202 (FLASH) installed
(IC100-89p)
(IC100-88p)
(IC100-96p)
(IC100-158p)
(IC001-4p)
(IC100-92p)
(IC100-91p)
(IC100-106p)
(IC100-105p)
(IC100-99p)
(IC100-164p)
(IC100-110p)
(IC100-100p)
(IC100-107p)
(IC100-113p)
(IC100-90p)
(IC300-3p, IC500-10p, IC700-24p, IC914-13p)
(IC300-4p, IC500-13p, IC801-152p)
(IC300-5p, IC500-14p, IC801-151p)
(CN102-2p)
(CN102-3p)
(IC801-1p)
(IC100-101p)
(IC100-102p)
(IC100-103p)
(IC100-104p)
(IC100-206p)
(IC100-167p)
(IC100-170p)
(IC100-159p)
(IC500-19p)
(IC300-6p)
(IC801-150p)
to PN1-CN2
52207-2690
CN600
IC308
HD74LVC139FP
IC500
SN74HCT138NSR
IC703
UPC4570G2
IC702
UPC4570G2
IC501
TD62785F-TP1
Transistor
Array
DECODER
DAC
ADDRESS BUS
5D[0-7]
DATA BUS
to DM 2/2 : H-4
(PSR-1100)





Note: See parts list for details of circuit board component parts.

注: シートの部品詳細はパーツリストをご参照下さい。

(マ): Mylar Capacitor　(マイラーコンデンサ)

(セ): Ceramic Capacitor (セラミックコンデンサ)

IC101 HD74LV08AFP

IC300 HD63266F FDC

IC301 74LVC245APW BUFFER

IC302 74LVC245APW BUFFER

DECODER HD74LVC139FP

IC500 SED1335F0B LCDC

IC510 SN74HCU04NSR

IC511 SN74HCU04NSR

INVERTER

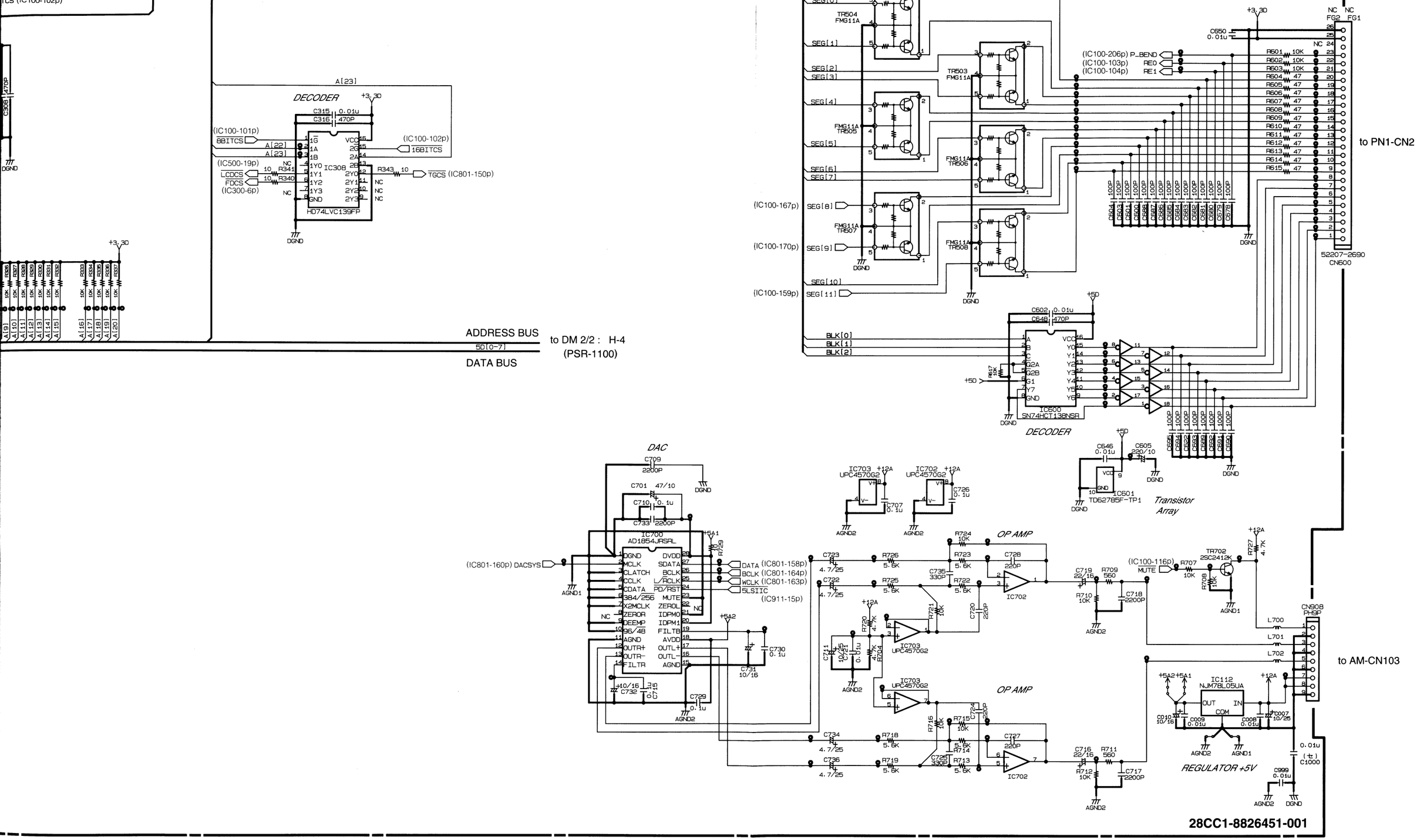
IC700 AD1854JRSRL DAC

ADDRESS BUS

DATA BUS 5D[0-7]

to DM 2/2 : H-4 (PSR-1100)

E	F	G	H	I	J	K	L	M



PSR-1100

I	J	K	L	M	N	O	P	Q

7 8 9 10 11 12